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ABSTRACT

This document reports the results for the second year assessment (reading and literature) by theme. The reading themes represent both a variety of reading materials and the variety of behaviors these materials require. The themes were developed by members of the National Assessment staff and reading specialists to cluster the reading exercises into reporting categories that are meaningful to persons concerned with the reading skills of various groups of young Americans. The themes are numbered such that the lower numbers designate skills that are usually associated with early reading and the higher numbers designate high order skills. The themes are: (1) understand words and word relationships, (2) graphic materials, (3) written directions, (4) reference materials, (5) read for significant facts in passages, (6) main ideas and organization, (7) drawing inferences, and (8) critical reading. Results are given for each theme for four age levels, 9, 13, 17, and 26-35. Within each age level across the nation results are also given for the four regions of the country, for the two sexes, for blacks and whites, for four levels of parent education, and for seven sizes and types of community. In addition to describing each group's overall behavior relative to the national level, the document describes each group's specific behaviors relative to its own overall level of behavion. (WR)

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REPORT 02-R-03

WRITTEN DIRECTIONS

1970-71 Assessment

CS 000 811

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#02-L-04	Literature: A Survey of Reading Habits (Theme 4)	May, 1973
#11	Writing: Group Results A & B	May, 1973
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Report 02-R-03

WRITTEN DIRECTIONS

Theme 3, Reading

May, 1973

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INTRODUCTION TO THE THEMES

The results for the Year 02 assessment (Reading and Literature) are the first to be reported by theme. Conceptually, a theme defines a set of existing and potential exercises that relate to each other in content or some central idea that is meaningful to the subject area of concern. This format allows presenting all relevant results for each theme in a single report. The eight Reading themes are described briefly at the end of this introduction.

In its broadest sense, "reading" can mean such diverse things as a fortune teller's "reading" tea leaves, one person "reading" another's facial expression and so on. National Assessment is concerned with "reading" in a narrower sense--those "reading skills" usually taught in the schools--and the percentages of individuals who have attained those skills.

In everyday life, people encounter such diverse types of reading materials as books, newspapers, reference works, directions, sundry graphic materials, and others. Many of these materials can be read "on the surface" or "in depth." A person may simply glean isolated facts from reading materials; or he may relate these facts to recognize the central idea the facts support, draw complex inferences from the facts, or criticize the content. In his essay, "Of Studies," Francis Bacon said,

> Some books are to be tasted, others to be swallowed, and some few to be chewed and digested; that is, some books are to be read only in parts; others to be read but not curiously; and some few to be read wholly, and with diligence and attention...Reading maketh a full man;... therefore,...if [a man] read little, he had need have much cunning, to seem to know that he doth not.

Some types of reading materials, therefore, neither require nor merit a deep, penetrating study that involves high level behaviors. Extrapolating from the Bacon quotation, we might say that a "good" reader can, first of all, discriminate between those materials that are best read shallowly and those that require a reading in depth. Then when he finds a work that needs to be "chewed and digested," he is able to do so effectively. A "poor" reader, on the other hand, can <u>at best</u> cope with the "shallower" types of reading materials and can only muddle on the surface of more profound works.

The Reading themes represent both a variety of reading materials and a variety of behaviors these materials require. They were developed by members of the National Assessment staff and reading specialists to cluster the Reading exercises into reporting categories that are meaningful to lay persons, scholars, and educators who are concerned with the reading skills of various groups of young Americans.[1]

The themes are numbered--the lower numbers designating skills that are usually identified with early reading and the higher numbers designating high order skills. Successful performance on exercises in the higher numbered themes requires some of the abilities measured in the lower numbered themes in addition to the higher order skill. This increasing complexity is apparent in the brief descriptions (below) of the Reading themes. A more detailed description of each theme appears in Chapter 1 of the respective theme report.

Theme 1: Understand Words and Word Relationships

Since most reading materials contain words, any cognitive behavior toward them requires at a minimum that the reader be able to understand the meanings of words and how words relate to form a meaningful whole. Exercises in this theme are of three types. One type requires the individual to give the meaning of a word occurring in isolation; another type requires the individual to derive the meaning of a word from its contextual use; and a third type requires the individual to recognize when sets of words relate to form a meaningful whole.

A person must be able to do more than merely recognize words and word relationships. In order to function adequately in everyday life, he must also be able to glean important facts from many types of materials. Themes 2-5 are all concerned with a person's ability to identify and extract significant factual information, but they differ in the method used to present the factual information.

Theme 2: Graphic Materials

Subtheme A: Interpret drawings and pictures
Subtheme B: Read signs and labels
Subtheme C: Read charts, maps, and graphs
Subtheme D: Read forms

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[1]See Chapter 3, General Information Yearbook (Report 02-GIY).

Theme 2 is characterized by materials using a variety of formats other than line-by-line narrative to convey their messages. Graphic materials can be used alone in lieu of line-by-line narrative or can be used in conjunction with line-by-line narrative to clarify or augment its meaning.

Theme 3: Written Directions

Subtheme A: Understand written directions
Subtheme B: Carry out written directions

Directions are information-imparting materials that tell how to do something. The subtheme understand written directions requires only that an individual indicate that he could perform what the directions state, given the opportunity. The subtheme carry out written directions requires the individual to actually perform what the directions state under circumstances that imply understanding as a prerequisite for adequate performance.

Theme 4: Reference Materials

Subtheme A: Know appropriate reference sources
Subtheme B: Use reference materials effectively

In order to utilize information from reference materials, an individual must first know which type of reference to consult for a specific kind of information. This is the requirement of the subtheme know appropriate reference sources. Once the appropriate source is located, an individual must be able to extract the desired information, that is, use reference materials effectively.

Theme 5: Read for Significant Facts in Passages

This theme requires the most concrete level of behavior toward line-by-line narrative. Some exercises require the individual to extract certain facts while the passage is still available to him for reference. Other exercises require the individual to recall certain facts when the passage is no longer available. Still other exercises require the individual to discern ways in which certain facts relate to each other. While all three types of exercises are concerned with facts, they require increasingly high levels of behavior.

Only if a person can successfully glean important facts from the types of materials in Themes 2-5 is he able to function adequately in everyday life. A good reader, however, goes beyond just gleaning facts from materials. He is able to engage in higher levels of behavior toward the materials. These higher level behaviors are the topics of Themes 6-8. Most of the exercises involve line-by-line narrative, but some represent materials like those in Themes 2-4.

Theme 6: Main Ideas and Organization

Identifying the main idea of a passage or discovering its organization requires a higher level of comprehension than merely gleaning the important facts. Some exercises require the individual to identify the main idea being expressed in a passage either by suggesting an appropriate title or by identifying the point the author is attempting to make. Other exercises require the individual to identify the mode in which the author organizes the facts.

Theme 7: Drawing Inferences

Drawing inferences requires that an individual derive a conclusion not explicitly stated in the passage but which logically might be expected on the basis of the organization of the passage and the information it contains. For some exercises, the individual needs only the information in the passage to derive a conclusion; for others, however, he must also have some additional information based upon his prior experience.

Theme 8: Critical Reading

Critical reading requires from an individual the highest level of behavior--analysis and reasoning. In addition, it requires a reaction to or an opinion about the passage. Critical reading represents a deep interaction between author and reader that can lead to an understanding that is greater than the contribution of either.

METHODS OF DESCRIBING THE DATA

In order that the reader of this and other National Assessment reports be able to obtain the fullest benefit and meaning of the data we describe, we recommend that the reader consult the General Information Yearbook (Report 02-GIY). This Yearbook discloses the origin, purposes, and goals of the National Assessment project and the philosophy of assessment as contrasted to standardized testing. The Yearbook also presents the operational procedures and methods we use to obtain, score, analyze, and describe our data. We believe that this information is essential for the reader to obtain a full understanding of National Assessment data.

Describing the Data

We report results for four age levels (9, 13, 17, and young adult, 26-35). Within each age level across the nation as a whole (national level) we give results for four regions of the country (Northeast, Southeast, Central, and West); two sexes (male and female); two colors (Black and White); four levels of parental education (no high school, some high school, graduated from high school, and post high school); and seven sizes and types of community for ages 9 and 13 and in-school age 17 (extreme inner city, extreme rural, small city, medium city, rest of big city, suburban fringe, and extreme affluent suburb). Type-of-community information was not available for individuals in the out-of-school assessment (young adults and some 17-year-olds). For this reason we report, for young adults, only the results for four sizes of community (big city, small place, medium city, and urban fringe). The size-and-type-of-community data reported for 17-year-olds applies only to those enrolled in school at the time of assessment.[1]

Most exercises have answers that can be scored "correct" or "incorrect." Many others, however, while having answers that cannot be scored "correct" or "incorrect," have some best answer or most desirable answer. We use the term--percentage of success--to describe the proportion of individuals who gave the correct, best, or most desirable answer to an exercise. We express a

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[1]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of these age levels and groups.

percentage of success for the nation as a whole (entire age level) and for each of these groups on each exercise.

We then determine the difference between the percentage of success for each group and the percentage of success for the nation as a whole, and the number we obtain is called an effect. An effect is expressed as the percentage of success for a group minus the percentage of success for the nation as a whole. For example:

Northeast % of Success	-	National % of Success	=	Northeast Effect

A positive (greater than zero) effect means that a larger percentage of individuals in a group gave an acceptable answer to an exercise than did so in the nation as a whole. For example, if 74% of 13-year-olds in the Northeast gave an acceptable answer, but only 68% of the 13-year-olds in the nation as a whole gave an acceptable answer, the Northeast effect for 13-year-olds would be

Northeast % of Success	-	National % of Success	=	Northeast Effect
74%	-	68%	=	6%

A negative (less than zero) effect means that a smaller percentage of individuals in a group gave an acceptable answer to an exercise than did so in the nation as a whole. For example, if 52% of 9-year-olds in the West gave an acceptable answer but 60% of 9-year-olds in the nation as a whole gave an acceptable answer, the West effect for 9-year-olds would be

West % of Success	-	National % of Success	=	West Effect
52%	-	60%	=	-8%

Limitations of the Data

The National Assessment of Educational Progress was created to provide data regarding the educational achievements of various groups of young Americans in 10 subject areas.[2] Within the limits

[2]Art, Career and Occupational Development, Citizenship, Literature, Mathematics, Music, Reading, Science, Social Studies, and Writing.

of error due to measurement[3] and sampling error,[4] the data presented in National Assessment reports accurately describe the educational achievements of these groups as they exist in the real world. These data portray the problems facing education--improving the educational achievements of various groups of students.

Although we refer to the observed difference between an achievement for a group and that for the nation as a whole as a group effect, we do not imply a cause-effect relationship between membership in a group and that group's level of achievement. Our use of the term effect derives solely from a statistical usage. National Assessment is not intended to provide reasons for differences if they exist. Many factors can and frequently do affect the educational achievements of members of various groups. Consider, for example, a hypothetical group whose achievement is well above the national level. Most members of the group may attend schools that have excellent physical facilities and high quality faculties, belong to high social-economic families, have many reading materials available in the home, encouragement from their parents and so on. All these factors--and others--could contribute to the group's high level of achievement while membership in the group itself may contribute very little or nothing. We simply cannot assess some of these contributing factors directly. Some of these factors are points of sensitivity to various groups. The information necessary to assess certain factors is often not obtainable (for example, younger children may not know the information). Other factors may not yet have been identified. The factors we assess "stand in" for many other factors that can and do influence educational achievement and, therefore, reflect different levels of achievement among groups.

The name of a group is merely a categorical label. Therefore, the characteristic(s) indicated by a group's name must not

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[3]Measurement error stems from three basic sources: (1) the measuring instrument; for example, instructions may be misleading, questions vaguely phrased, or contain a tipoff to the correct answer; (2) the examinee; for example, may be emotionally upset, physically ill or handicapped, or lack motivation; and (3) the measurement situation; for example, temperature and lighting conditions, noise level, pleasantness of surroundings, and the test administrator.

[4]When data are obtained from samples of entire populations, it is improbable that the numbers we obtain are exactly the same as we would have obtained from the entire population. See the General Information Yearbook, Chapter 10 and Appendix C (Report 02-GIY) for a discussion of sampling error and standard error.

be construed as necessarily being the cause or even as being a cause for the comparatively high or low achievement of that group compared to the national level. Often, a disproportionately large percentage of members of a group of interest are also members of particular groups defined by other factors; all these factors may contribute to the group's high (or low) level of achievement.

The aim of National Assessment is to describe the educational achievement of entire groups, that is, populations. While we do not obtain data from all members of any group, we obtain data from carefully selected representative samples. Even data obtained in this way, however, are subject to error. Because of this error, the group effects we observe in the sample data will not be exactly the same as if we were to assess all members of the group. We use statistical procedures to determine the probable extent of this sampling error.

Our major concern is with the direction of population effects. When we look at each sample effect, therefore, we need to ask, "Is this sample effect large enough that we can be reasonably certain that the direction of the population effect is the same as that of the population effect?" When the size of a sample effect is at least two times as large as its standard error, the probability is at most 5% that an effect this large or larger would be obtained from a sample if no real population effect in that direction existed. We call such effects reliable and indicate them on exhibits with asterisks (*) to show that the indicated direction is reasonably certain for the population effect.

Reasonable certainty of direction is often not the same as a sample effect's being large enough for the corresponding population effect to be of practical importance. This must be judged by the user. In making such judgments about sample effects, however, the user must pay attention to their reliability, that is, their certainty or uncertainty of direction. If we cannot be reasonably certain that a sample effect has the same direction as the corresponding population effect (no asterisk), we cannot place much weight on its size, even if we would judge its size and direction quite important knowing this value to be the population effect.

Summarizing the Data

In summarizing the data for a group, we talk of the group's overall behavior and certain specific behaviors. An overall behavior is represented numerically by the group's median effect and reflects its relative performance as a whole on a theme. A specific behavior is represented numerically by a group's effect on a given exercise (or part of an exercise) and reflects its relative performance only on that exercise (or part). Summary

statements about a group's overall behavior are derived from the group's specific effects on the individual exercises in a theme; however, it is often the case that such general statements about overall behavior does not adequately describe some of the specific effects. Therefore, caution must be exercised when applying summary statements to individual exercises. Summary statements describe a group's overall behavior on a set of exercises, that is, the behavior we would expect from the group based on the data at hand. In addition to describing each group's overall behavior, we also indicate those exercises on which each group behaved differently than we would expect relative to its own overall or median level.[5]

In summarizing the data for a theme, we would like to make a single statement that describes each group's overall behavior relative to the national level. One suitable number that describes such overall behavior is the group's median effect. It tells where the center of the distribution of a group's effects is located, that is, half the effects are above and half below the median value. However, it could be misleading to say that a group's overall behavior is above or below the national level simply because its median effect is above or below the national level. A group whose median effect is close to the national level (for example, 0.2) probably behaved more like than very different from the national level on the given set of exercises (theme).

We stated above that we could place little weight on unreliable effects. However, if a large enough proportion of a group's effects--even if none are reliable--occur either above or below the national level, we have an indication that the group's overall behavior tends to be above or below the national level. If, in addition to having a large proportion of its effects occurring in one direction, a group has many reliable effects, we have an indication that the group's overall behavior differs more strongly from the national level. We have adopted the following rules to describe when a group's overall behavior: (1) tends to be about the same as the national level, (2) tends to be different (differs weakly) from the national level, or (3) is characteristically different (differs strongly) from the national level.

1. A group's overall behavior on a theme tends to be about the same as the national level if fewer than 75% of its effects occur either above or below the

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[5]A median is the point in an ordered set of values below which 50% of the values occur. For a more complete description of the median, see the General Information Yearbook, Appendix E (Report 02-GIY).

national level. In other words, if a group's upper quartile[6] effect is positive (greater than zero) and the lower quartile[6] is negative (less than zero), the group's overall behavior is about the same as the national level.

2a. A group's overall behavior on a theme tends to be above the national level if at least 75% of its effects are positive. In other words, if a group's lower quartile effect is positive, the group's overall behavior tends to be above the national level.

2b. A group's overall behavior on a theme tends to be below the national level if at least 75% of its effects are negative. In other words, if a group's upper quartile effect is negative, the group's overall behavior tends to be below the national level.

3a. A group's overall behavior on a theme is characteristically above the national level if at least 75% of its effects are positive and if more than 50% of its effects are reliably greater than zero.

3b. A group's overall behavior on a theme is characteristically below the national level if at least 75% of its effects are negative and if more than 50% of its effects are reliably less than zero.

Both direction tendencies and directional characteristics provide a means of comparing each group's overall behavior with the national level. They do not tell us, however, on which exercises a group behaves quite differently than we would expect on the basis of its overall behavior.

Atypical Group Behaviors

In addition to describing each group's overall behavior relative to the national level, we describe each group's specific behaviors relative to its own overall level of behavior. As we stated earlier, a suitable number that describes a group's overall behavior is its median effect. Note on Exhibit M-1 how a group's effects distribute around the median point. An arrow (→)

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[6]The lower quartile is the point in an ordered set of values below which 25% of the values occur. The upper quartile is the point in an ordered set of values below which 75% of the values occur. For a more complete description of the quartiles, see the General Information Yearbook, Appendix E (Report 02-GIY).

indicates the location of the median point of each distribution. For many groups, some effects stand notably apart from most of those in the distribution. We can think of these outstanding effects as representing a group's atypical behaviors, that is, the group's specific effects that differ markedly from its overall behavior (or median level). We have adopted the following rule to identify those exercises on which a group exhibits atypical behavior.

If an effect for a given exercise departs from the median effect by an amount at least two and one half times as large as the pooled standard error[7] of all the group's effects for a given set of exercises (theme), the group's behavior on that exercise is atypical. Again, look at the example exhibit (M-1). The zero line (Ø) represents the national level of behavior. An effect is represented by a box with an X (☒) unless it is atypical. An atypical effect is represented by an open box (☐).

If a group's overall behavior has no directional tendency, that is, if it tends to be about the same as the national level, it suffices to say that an atypical behavior is high or low for that group. See, for example, the distribution of effects for the small-city group (SC) on Exhibit M-1.

On the other hand, if a group's overall behavior has either a directional tendency or a directional characteristic above the national level, or if a group's overall behavior has either a directional tendency or a directional characteristic below the national level, it is not sufficient to say that a group's atypical behavior is simply high or low. Consider, for example, the distributions for two groups from Exhibit M-1. The overall behavior for the no-high-school (NHS) parental-education group is characteristically below the national level, and the overall behavior for the post-high-school (PHS) group is characteristically above the national level. The atypically low behaviors of the NHS group are even farther from the national level than its own median level while the atypically low behaviors of the PHS group would be closer to the national level than its own median level. Conversely, the atypically high behaviors of the PHS group are even farther from the national level than its own median level while the atypically high behaviors of the NHS group are closer to the national level than its own median level.

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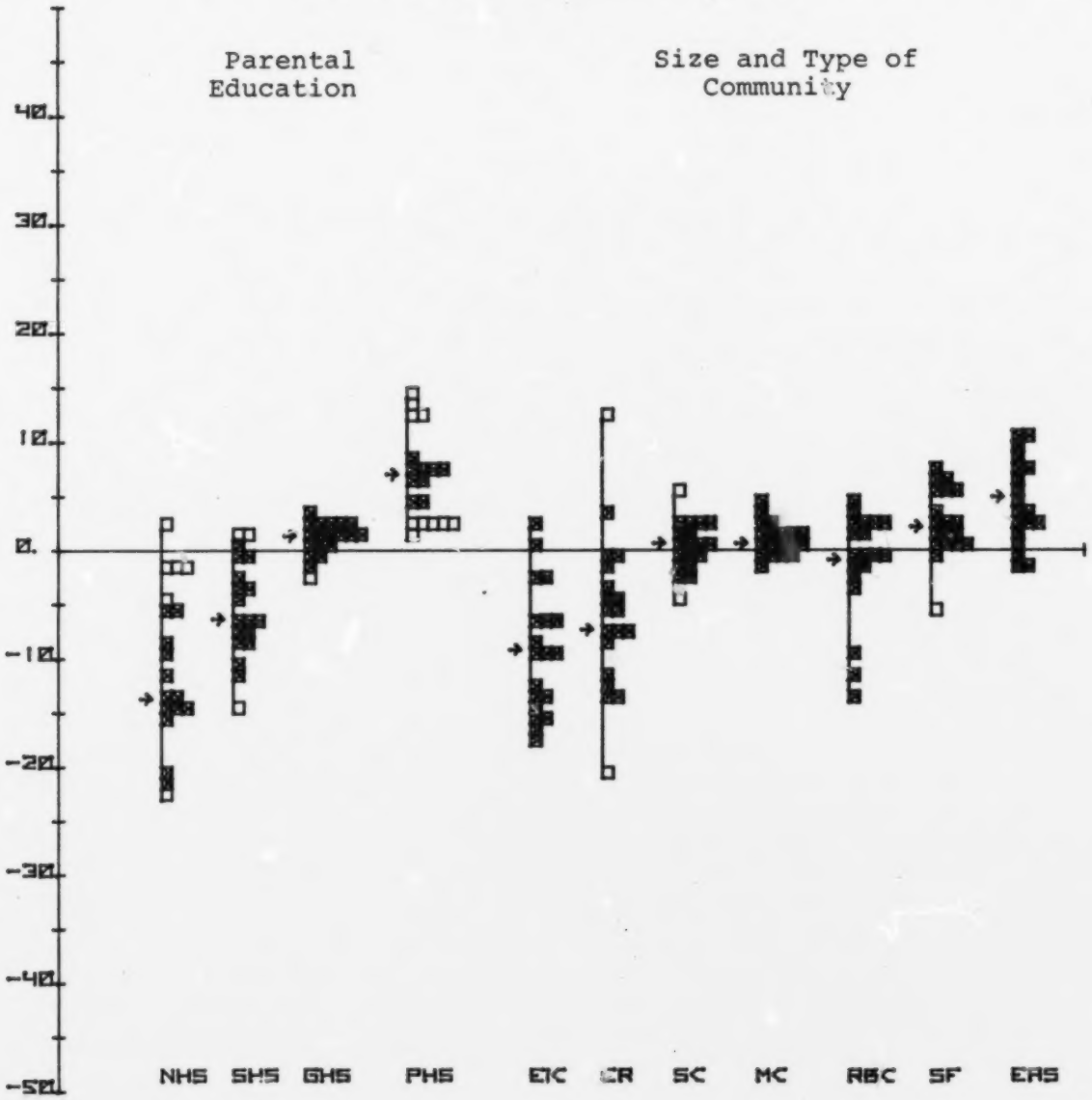
[7]Chapter 10 and Appendix C of the General Information Yearbook (Report 02-GIY) discuss the meaning and use of the standard error. Appendix C gives the formula for the pooled standard error we use.

Exhibit M-1

Example Distributions of Effects



	NHS	SHS	GHS	PHS	EIC	CR	SC	MC	RBC	SF	ERS
Median Effect	-13.7		1.3		-9.2		0.6		-0.9		4.9
		-6.3		7.0		-7.3		0.6		2.2	

KEYS:

Region

SE	Southeast
W	West
C	Central
NE	Northeast

Sex

M	Male
F	Female

Color

B	Black
W	White

Parental Education

NHS	No High School
SHS	Some High School
GHS	Graduated from High School
PHS	Post High School

Size and Type of Community (STOC)

EIC	Extreme Inner City
ER	Extreme Rural
SC	Small City
MC	Medium City
RBC	Rest of Big City
SF	Suburban Fringe
EAS	Extreme Affluent Suburb

Size of Community (SOC)

BC	Big City
SP	Smaller Places
MC	Medium City
UF	Urban Fringe

It seems logical that we consider together: (1) those atypical behaviors that are farther from the national level than a group's own median level, and (2) those atypical behaviors that are closer to[8] the national level than a group's own median level.

In summary, in the age level chapters (3, 4, 5, and 6), we give particular attention to those exercises on which each group has atypical behaviors. If a group's overall behavior has no directional tendency, we describe the group's overall behaviors as being either high or low. If a group's overall behavior has a directional tendency or a directional characteristic, we describe the group's atypical behaviors as farther from or closer to the national level than the group's own median level.

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[8]An atypical effect (or behavior) described as closer to the national level most often is less extreme in the same direction as a group's tendency or characteristic. It sometimes happens, however, that a "closer to" atypical behavior occurs in the opposite direction from the national level as the group's median level. We use the single term, closer to, to describe all atypical behaviors that depart from a group's median level in the direction of the national level.

CHAPTER 1

THEME 3: WRITTEN DIRECTIONS

Written directions represent a conscious effort on the part of the author to elicit specific overt behaviors in the reader--often in a certain order. The information contained in directions is generally organized or developed in a logical sequence in order to elicit the desired behaviors.

To understand and carry out written directions successfully, the reader must not only be able to understand words and word relationships but also recognize that there is a logic behind the sequence of the information and the behaviors the directions are expected to produce. Theme 3 is divided into two subthemes.

A. Understanding written directions.
B. Carrying out written directions.

On the exercises in Subtheme A, the reader is not required to actually carry out the directions; but by correctly answering a question, he indicates that he could carry them out should the occasion arise for him to do so. If the directions are a recipe, for example, the question might ask what ingredients are to be added at a certain point. If the reader answers correctly, he indicates he understands that the ingredients must be combined in a certain order.

In order to succeed on exercises in Subtheme B, the reader must accurately carry out the behaviors called for in the directions.

Written directions can be thought of as a special type of reference material (Theme 4) in that an individual is usually seeking certain information when he reads directions and in that directions are organized to facilitate retrieval of specific information. The ability to understand and carry out ("read") written directions is one of several necessary reading skills, but it is not sufficient for adequate functioning in everyday life.

CHAPTER 2

SUMMARY OF RESULTS

In summarizing the data for Theme 3: Written Directions, we compare the overall performance of the various groups to the national level on the set of exercises representing Theme 3. An overall behavior represents the behavior we would expect from a given group on Theme 3 exercises on the basis of the data at hand.

Exhibit 2-1 shows the median group effects at each age level. Exhibit 2-2 shows the directional tendencies and the directional characteristics[1] of the overall group behaviors represented by the median effects.

1. A zero (0) indicates that a group's overall behavior tends to be about the same as the national level.

2a. A plus sign (+) indicates that a group's overall behavior tends to be above the national level.

2b. A minus sign (-) indicates that a group's overall behavior tends to be below the national level.

3a. A double plus (++) indicates that a group's overall behavior is characteristically above the national level.

3b. A double minus (--) indicates that a group's overall behavior is characteristically below the national level.

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[1]These terms are defined in Methods of Describing the Data, in the section Summarizing the Data.

Exhibit 2-1

Median Group Effects at Each Age Level

Age Level No. of Effects	9 (7)	13 (22)	17 (18)	Adult (4)
Region				
Southeast	-4.3	-7.2	-4.9	-7.9
West	-1.3	0.6	0.4	2.1
Central	3.6	2.8	2.8	3.3
Northeast	0.4	1.6	0.6	2.0
Sex				
Male	-2.1	-3.4	-2.8	-0.3
Female	2.1	3.4	2.9	0.3
Color				
Black	-11.2	-21.3	-15.6	-19.7
White	1.9	3.6	2.3	2.6
Parental Education				
No High School	-5.9	-15.1	-12.0	-5.8
Some High School	-4.9	-5.4	-4.0	-0.2
Graduated High School	-0.2	1.0	0.6	2.2
Post High School	6.3	7.9	5.4	7.3
Size and Type of Community*				
Extreme Inner City	-9.5	-9.3	-10.3	
Extreme Rural	-3.8	-4.6	-2.7	
Small City	0.9	0.6	-1.1	
Medium City	0.7	-0.3	1.2	
Rest of Big City	-0.6	0.3	1.0	
Suburban Fringe	2.0	1.8	2.6	
Extreme Affluent Suburb	5.6	6.5	5.1	
Size of Community				
Big City				-4.6
Small Place				2.2
Medium City				-1.7
Urban Fringe				1.5

*Type of community information was not available for out-of-school individuals (young adults and some 17-year-olds). Size and type of community median effects at age 17 apply only to those in school.

Exhibit 2-2

Directional Tendencies and Directional Characteristics

Age Level	9	13	17	Adult
Region				
Southeast	-	--	--	--
West	0	0	0	+
Central	+	+	++	+
Northeast	0	+	0	0
Sex				
Male	-	--	--	0
Female	+	++	++	0
Color				
Black	--	--	--	--
White	++	++	++	++
Parental Education				
No High School	-	--	--	--
Some High School	-	-	-	-
Graduated High School	0	+	0	+
Post High School	++	++	++	++
Size and Type of Community*				
Extreme Inner City	--	--	--	
Extreme Rural	-	-	-	
Small City	0	0	-	
Medium City	+	0	+	
Rest of Big City	0	0	0	
Suburban Fringe	0	+	+	
Extreme Affluent Suburb	+	++	++	
Size of Community				
Big City				-
Small Place				+
Medium City				0
Urban Fringe				0

*Type of community information was not available for out-of-school individuals (young adults and some 17-year-olds). Size and type of community median effects at age 17 apply only to those in school.

CHAPTER 3

RESULTS FOR AGE 9

The 9-year-olds participating in the 1970-71 Reading assessment were born during the calendar year, 1961. About three-fourths of them were enrolled in the fourth grade at the time of the assessment and most of the remainder were enrolled in the third grade.

First, we describe each group's overall performance on the Theme 3 exercises; then we indicate those exercises on which specific group behaviors differ atypically from the group's median level; finally we present each exercise individually and describe its results.

Seven specific effects (behaviors) on written directions are summarized at age 9. Two of these are described in detail. The other five represent unreleased exercises to be used in future assessments. Exhibit 3-1 shows the distribution of the behaviors for each group relative to the national level indicated by the Ø line. A group's median level is indicated by an arrow (→). A typical behavior for the group is shown by a box with an X (☒), and an atypical behavior is indicated by an open box (□).

When a group's overall behavior has been described as tending to be above or tending to be below or as characteristically above or as characteristically below the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level or (2) atypically closer to[1] the national level.

When a group's overall behavior has been described as being about the same as the national level, a specific behavior for that group can be atypically high or low relative to the group's median level.

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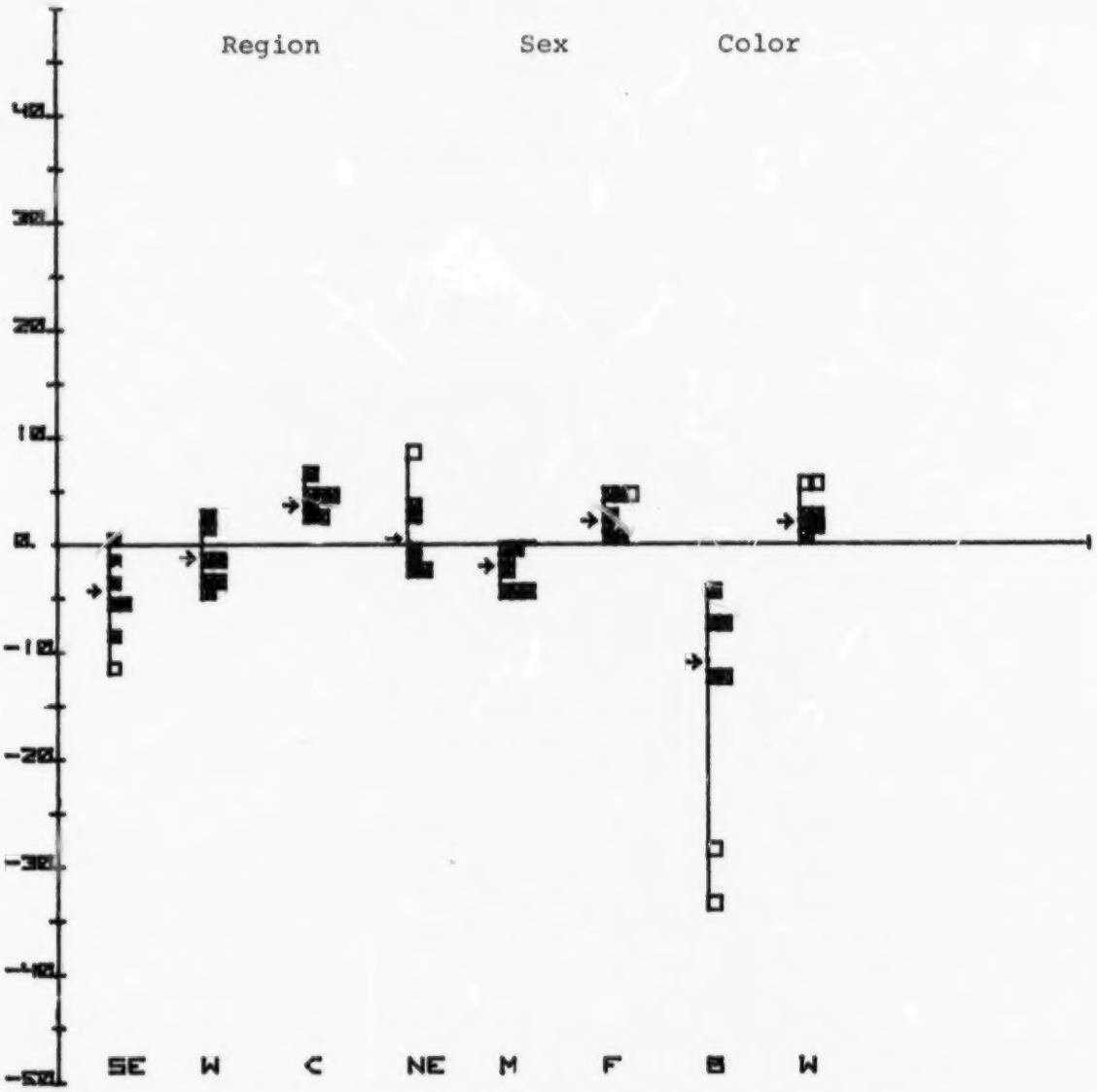
[1]An atypical effect (or behavior) described as closer to the national level may be: (1) less extreme in the same direction as a group's tendency or characteristic or (2) it may occur in the opposite direction from the group's median level.

Exhibit 3-1A

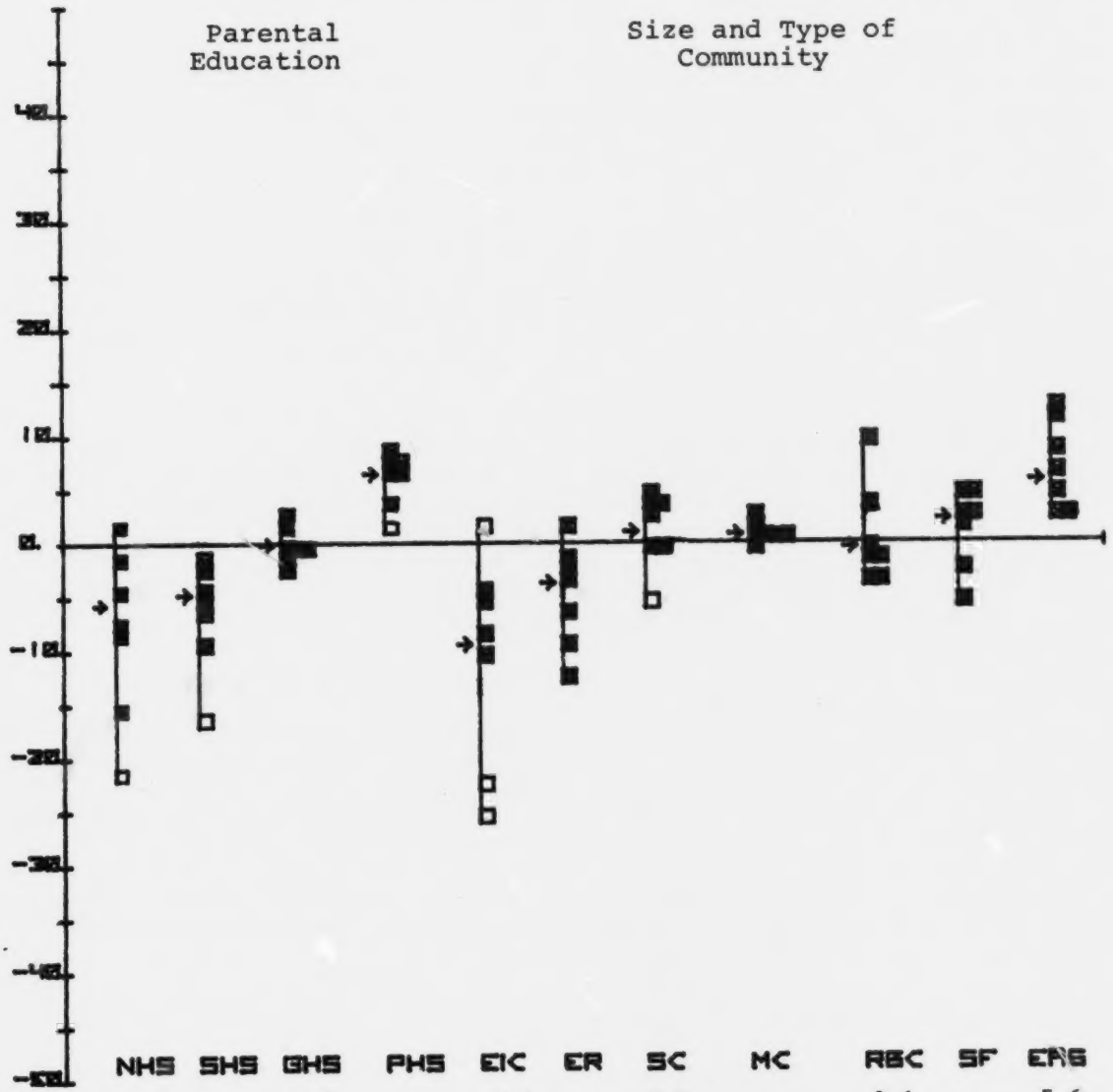
Distributions of Effects for Age 9



	SE	W	C	NE	M	F	B	W
Median Effect	-4.3	-1.3	3.6	0.4	-2.1	2.1	-11.2	1.9

Exhibit 3-1B

Distributions of Effects for Age 9



	NHS	SHS	GHS	PHS	EIC	ER	SC	MC	RBC	SF	ERS
Median Effect	-5.9	-4.9	-0.2	6.3	-9.5	-3.8	0.9	0.7	-0.6	2.0	5.6

Region

No region demonstrated a characteristic difference from the national level but both the Southeast and the Central regions showed directional tendencies. The Southeast, with a median effect of -4.3, tended to perform below the national level of success. The group achieved a percentage atypically farther from the national level on Exercise U306, an unreleased exercise that requires 9-year-olds to draw geometric forms from written directions. On the other hand, the Central region, with a median effect of 3.6, tended to perform above the national level of success.

Results for 9-year-olds in both the West and the Northeast were clustered around the national level of success. Children in the Northeast attained an atypically high percentage of success on Exercise U306.

Sex

Nine-year-old boys, with a median effect of -2.1, tended to perform below the national level, and girls, with a median effect of 2.1, tended to perform above the national level, but neither group demonstrated a characteristic direction. Girls attained a percentage atypically farther from the national level on Exercise U306, the unreleased exercise that requires drawing geometric forms from a set of directions.

Color

Results by color were more extreme than those of the previous variables. Blacks, with a median effect of -11.2, were characteristically below the national level of success. Results for the group were atypically farther from the national level on Exercise U306 and Exercise R303, a released exercise that requires following four simple directions. Whites, with a median effect of 1.9, characteristically perform above the national level. They also attained percentages atypically farther from the national level on Exercises R303 and U306.

Parental Education[2]

Both the no-high-school group, with a median effect of -5.9, and the some-high-school group, with a median effect of -4.9, tended to perform below the national level of success. Those

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[2]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education groups.

whose parents have no high school education attained results atypically farther from the national level on Exercise R303; those whose parents have some high school education attained results atypically farther from the national level on Exercise U306.

The graduated-from-high-school group performed at about the national level of success on all the exercises in Theme 3.

Only the post-high-school group, with a median effect of 6.3, showed a characteristic direction. Although 9-year-olds who have at least one parent with a post high school education characteristically perform above the national level of success, the group achieved an atypically low percentage of success on Exercise U301, an unreleased exercise that involves understanding a comic strip.

Size and Type of Community (STOC)[3]

Only one STOC group, the extreme inner city, attained results that were characteristically different from the national results. The group, with a median effect of -9.5, performed well below the national level, posting percentages of success atypically farther from the national level on Exercises R303 and U306. But the group also attained a percentage of success atypically closer to the national value on Exercise R307, which involves understanding the directions in a recipe.

The extreme-rural group, with a median effect of -3.8, tended to be below the national level.

Both the medium-city and the extreme-affluent-suburb groups, with median effects of 0.7 and 5.6, respectively, tended to achieve percentages above the national level.

The remaining STOC groups achieved effects very close to the national level and did not demonstrate directional tendencies. The small-city group recorded an atypically low percentage of success on Exercise R307.

* * * * * * * * *

The data for each released exercise representing written directions is presented in the following manner. The upper part

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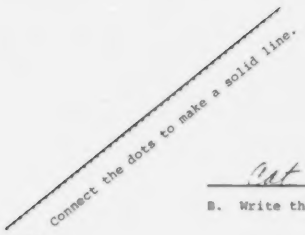
[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size and type of community groups.

of the page shows the exercise number; then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of 9-year-olds choosing each answer is also shown.

The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures) and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. In addition to the percentages, the effects can also be seen graphically. Note the vertical dashed line descending from the end of the national percentage bar. This allows a visual comparison of each group's percentage of success with the national level.

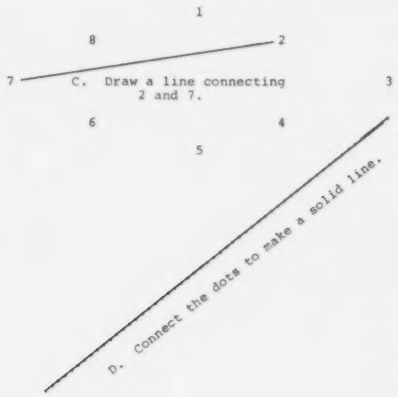
RELEASED EXERCISES

Exercise 303



cat

B. Write the word "cat" on this line.



THE GRAPH BELOW REFERS TO THE PERCENTAGE WHO CORRECTLY FOLLOWED ALL FOUR DIRECTIONS.

401 179 1/2 14*X303050 R0030000 9 13

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
70.0	---	NATIONAL	
		REGION	
62.4	-8.1*	Southeast	
66.5	-3.9	West	
76.7	6.3*	Central	
73.9	3.4	Northeast	
		SEX	
66.4	-4.1*	Male	
74.5	4.0*	Female	
		COLOR	
37.2	-33.3*	Black	
76.3	5.9*	White	
		PARENTAL EDUCATION	
49.2	-21.3*	No High School	
60.6	-9.9	Some High School	
70.0	-0.4	Graduated High Sch.	
76.9	6.5*	Post High School	
		SIZE-AND-TYPE OF COMMUNITY	
49.4	-22.0*	Extreme Inner City	
67.4	-3.0	Extreme Rural	
73.9	3.5	Small City	
70.8	0.4	Medium City	
69.4	-1.0	Rest Of Big City	
72.9	2.4	Suburban Fringe	
78.5	8.1	Extreme Aff Suburb	

Exercise 303 -- Age 9

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

Exercise 303 asks children to carry out four simple instructions. Acceptable responses on parts A and D consist of lines that leave up to three dots at either end blank. The line must be continuous, although a few dots may be missed along the way. Any word recognizable as cat is considered an acceptable response to part B. In part C, only reasonably straight lines from 2 to 7 are considered to be acceptable responses. A small percentage drew curved lines that terminated at the desired points; especially common for this group was a continuous line that connect 2, 3, 4, 5, 6, and 7.

Seventy percent of all 9-year-olds responded correctly to all four directions, but percentages were not the same for each of the four parts separately. The highest percentage of correct responses was given in part B (93%) and lower percentages were given in parts A (84%), D (82%), and C (80%), respectively.

Exercise 307

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

— Omitted due to copyright —

— restrictions —

— —

spread with a fork, toast on both sides
dozen.

Nat'l % Choosing Each Answer	How long does it take to bake English muffins on top of range?
18.4%	○ 8-10 minutes
4.8%	○ Exactly 10 minutes
36.2%	● About 30 minutes
19.6%	○ 1 1/4 hours
7.6%	○ More than 3 hours
11.4%	○ I don't know.
2.1%	No response

*Editors of Better Homes and Gardens Bread Cookbook. Reprinted by permission of Meredith Publishing Company.

M07 10 3/1 03*X307011 R10000D0 9 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
36.2	---	NATIONAL	
		REGION	
30.7	-5.6*	Southeast	
33.0	-3.2	West	
40.4	4.2	Central	
38.9	2.7	Northeast	
		SEX	
33.7	-2.5*	Male	
39.7	2.5*	Female	
		COLOR	
31.4	-4.9	Black	
37.2	0.9*	White	
		PARENTAL EDUCATION	
38.0	1.8	No High School	
30.4	-5.8	Some High School	
33.5	-2.8	Graduated High Sch.	
43.8	7.6*	Post High School	
		SIZE-AND-TYPE OF COMMUNITY	
37.4	1.2	Extreme Inner City	
34.5	-1.7	Extreme Rural	
30.8	-5.4*	Small City	
36.1	-0.1	Medium City	
45.5	9.3*	Rest Of Big City	
40.2	4.0	Suburban Fringe	
38.4	2.6	Extreme Aff Suburb	

Exercise 307 -- Age 9

Overlap: Ages 13, 17, and adult

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Exercise 307 requires children to understand the relatively complex instructions in a recipe. Each of the incorrect answers consists of a time period that is mentioned in or could be derived from the recipe: 8-10 minutes is the kneading time, 10 minutes are required to let the dough rest; 1 1/4 hours are required each time the dough rises; and over 3 hours are required for the whole operation. The last response makes sense if "bake" is taken to mean the entire preparation. About 36% of all 9-year-olds indicated that English muffins take about 30 minutes to bake on the range. None of the other suggested answers was chosen as often, but "1 1/4 hours" and "8-10 minutes" were chosen much more often than the other incorrect responses; approximately a fifth of the 9-year-olds selected each of these answers.

CHAPTER 4

RESULTS FOR AGE 13

The 13-year-olds participating in the 1970-71 Reading assessment were born during the calendar year, 1957. About three-fourths of them were enrolled in the eighth grade at the time of the assessment, and most of the remainder were enrolled in the seventh grade.

First, we describe each group's overall performance on the Theme 3 exercises; then we indicate those exercises on which specific group behaviors differ atypically from the group's median level; finally we present each exercise individually and describe its results.

Twenty-two specific behaviors on written directions are summarized at age 13. Sixteen of these are described in detail. The other six represent unreleased exercises to be used in future assessments. Exhibit 4-1 shows the distribution of the 22 behaviors for each group relative to the national level indicated by the Ø line. A group's median level is indicated by an arrow (→). A typical behavior for the group is shown by a box with an X (☒), and an atypical behavior is indicated by an open box (☐).

When a group's overall behavior has been described as tending to be above or tending to be below, or as characteristically above or characteristically below the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level or (2) atypically closer to[1] the national level.

When a group's overall behavior has been described as being about the same as the national level, a specific behavior for that group can be atypically high or low relative to the group's median level.

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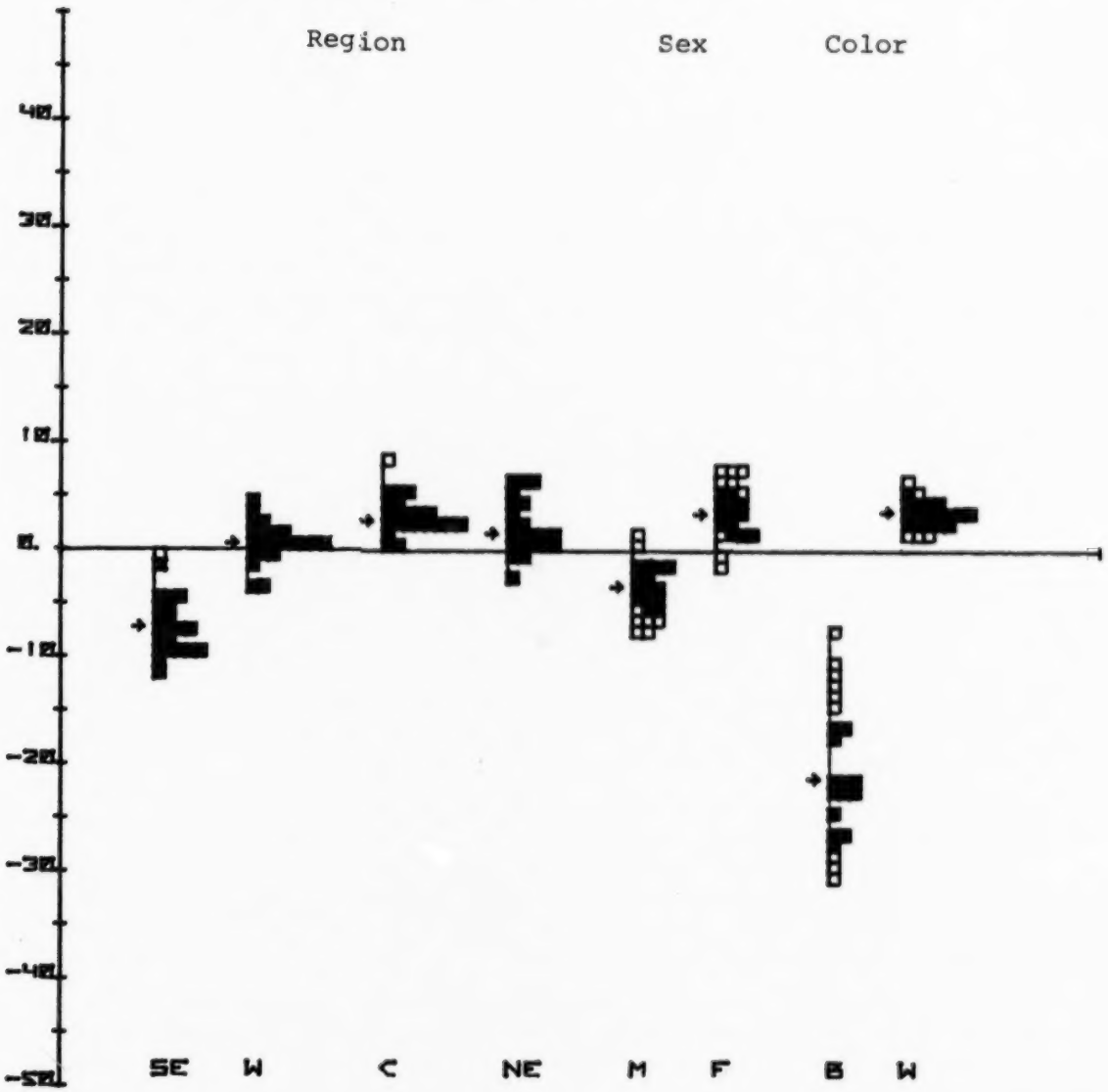
[1]An atypical effect (or behavior) described as closer to the national level may be: (1) less extreme in the same direction as a group's tendency or characteristic or (2) it may occur in the opposite direction from the group's median level.

Exhibit 4-1A

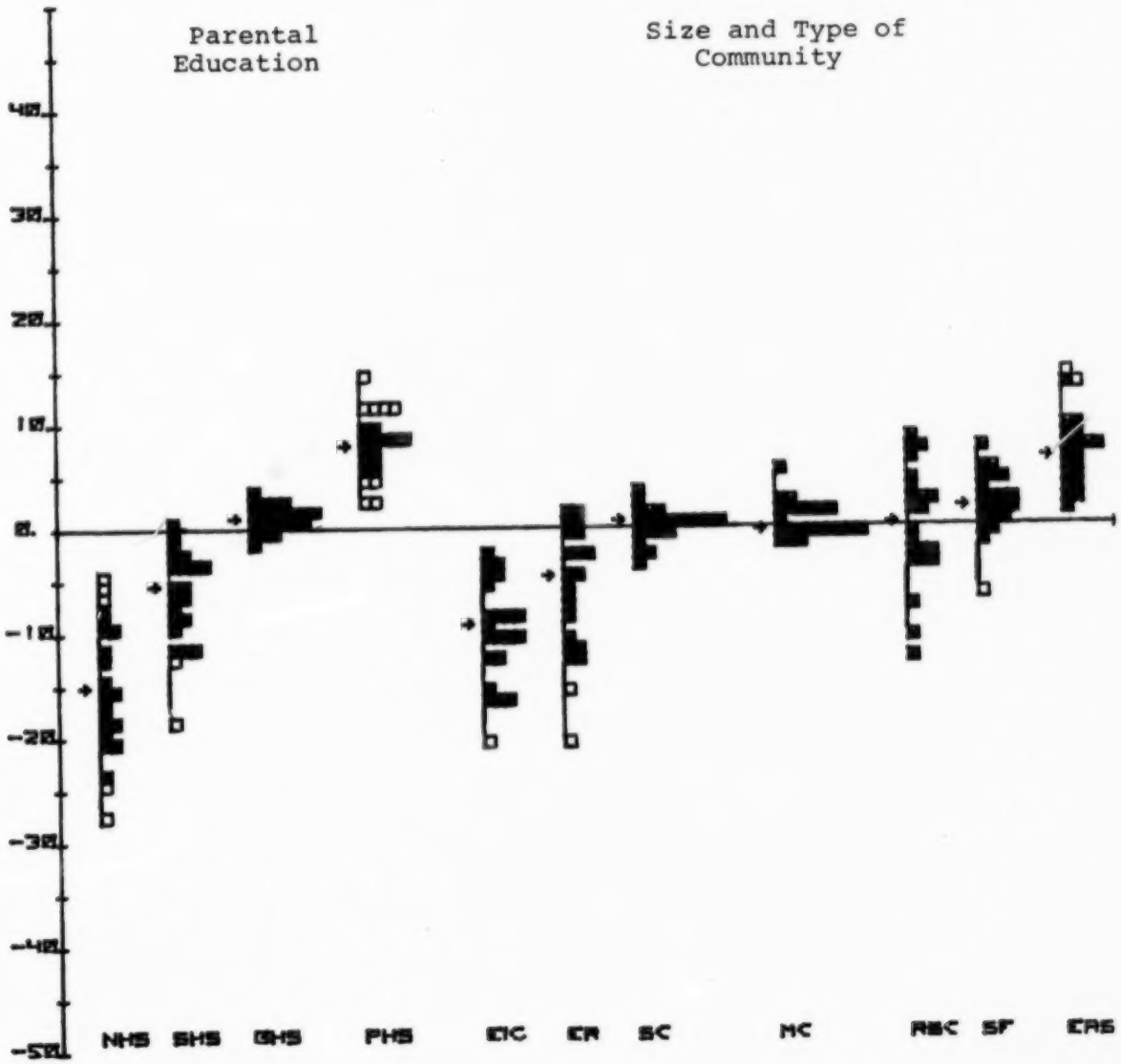
Distributions of Effects for Age 13



	SE	W	C	NE	M	F	B	W
Median Effect	-7.2	0.6	2.8	1.6	-3.4	3.4	-21.3	3.6

Exhibit 4-1B

Distributions of Effects for Age 13



	NHS	SHS	GHS	PHS	EIC	ER	SC	MC	RBC	SF	ERS
Median	-15.1		1.0		-9.3		0.6		0.3		6.5
Effect		-5.4		7.9		-4.6		-0.3		1.8	

Region

Only one region, the Southeast, differed characteristically from the national level on the exercises that involve understanding directions. The group, with a median effect of -7.2, performed below the national level, but attained a percentage atypically closer to the national level on Exercise R309, one of the exercises that involve understanding a recipe.

Both the Northeast and Central regions, with median effects of 1.6 and 2.8, respectively, tended to perform above the national level. Only one atypical result shows on an otherwise tight cluster. Thirteen-year-olds in the Central region achieved percentages atypically farther from the national level on Exercise R314, which involves drawing a geometric figure from a complex set of instructions.

Western 13-year-olds consistently performed at about the national level.

Sex

Boys performed characteristically below and girls characteristically above the national percentage on the exercises in Theme 3; a full 7 percentage points separate their median effects. Nonetheless, results for many of the exercises were atypical. Both groups achieved percentages atypically farther from the national level on Exercises R307 and R308, both of which involve reading recipes, on Exercises R31504 and R31603, both of which involve understanding a card game, on U311, an unreleased exercise that gives instructions for performing a magic trick, and on Exercise U318, an unreleased exercise that requires a student to fill out a long application.

However, both groups achieved percentages atypically closer to the national level on Exercise R31001, which requires understanding spray can instructions, and on Exercise R314, which involved drawing a geometric form from a complex set of instructions. Girls recorded a percentage atypically closer to the national level on Exercise U317, an unreleased exercise that gives instructions for drawing a triangle.

Color

Blacks and Whites also achieved results that were characteristically different from the national level. The median effect for Blacks was -21.3, for Whites, 3.6.

Blacks achieved results atypically closer to the national level on five of the released exercises. Two of them, Exercises

R307 and R309, involve understanding a recipe for English muffins; two others, Exercises R31501 and R31502, involve understanding the directions for a card game; the last, Exercise R313, requires students to follow instructions by writing numbers in the correct geometric forms. Blacks also achieved results atypically closer to the national level on Exercise U312, an unreleased exercise that presents complex instructions for a relatively simple action.

Whites posted results atypically closer to the national level on Exercises R309, R313, and U312.

Both groups attained percentages atypically farther from the national level on two released exercises, R314, which involves understanding instructions for drawing a complicated geometric form, and R31504, one of the questions about the card game. Blacks posted a percentage atypically farther from the national level on Exercise R31602, another card game question.

Parental Education[2]

The no-high-school group, with the median effect of -15.1 performed characteristically below the national level of success. On two exercises, R31001 (spray can) and R31504 (card game), the group posted percentages atypically farther from the national level. But on Exercises R313 (numbers inside forms), U312 (overly complex instructions), and U317 (draw a triangle), the group achieved a percentage atypically closer to the national level.

The some-high-school group, with the median effect of -5.4 tended to achieve results lower than the national level. The group achieved percentages atypically farther from the national level on Exercise R314 (geometric form) and on Exercise U30501, an unreleased exercise that involved understanding directions in a complex magazine advertisement.

Thirteen-year-olds in the graduated-from-high-school group tended to achieve results above the national level. The median effect for the group was 1.0.

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[2]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education groups.

The post-high-school group, with a median effect of 7.9, characteristically performed above the national level of success. The group achieved percentages atypically farther from the national level on exercises that were exceptionally difficult for the nation as a whole: R314 (geometric form), R31504 (card game), R31604 (card game), U318 (application), and U30501 (advertisement). However, the group recorded atypically closer to the national level on Exercises R309 (recipe), R31002 (spray can), R313 (numbers inside forms), and U312 (overly complex instructions).

Size and Type of Community[3]

The extreme-inner-city group, with a median effect of -9.3, achieved characteristically low results on the exercises in Theme 3. The group posted a percentage atypically farther from the national level on Exercise R314, the exercise that involved drawing geometric forms.

The extreme-rural group, with a median effect of -4.6, also tended to achieve percentages lower than the national level, but the group showed no characteristic direction. Rural 13-year-olds recorded a percentage atypically farther from the national level on Exercises R31001 (spray can) and R31601 (card game).

The extreme-affluent-suburb group, with a median effect of 6.5, characteristically performed above the national level of success. The group obtained percentages atypically farther from the national level on Exercises R31001 and R31603.

The suburban-fringe group, with a median effect of 1.8, tended to achieve positive effects, but showed no characteristic direction. The group achieved results atypically closer to the national level on Exercise U318 (application).

The remaining three STOC groups, the small city, the medium city, the rest of big city, all achieved percentages of success very close to the national level.

* * * * * * * * *

The data for each released exercise representing understanding words and word relationships is presented in the following

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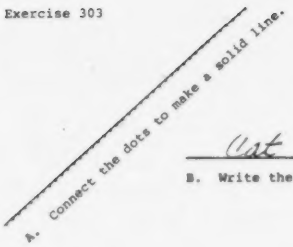
[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size and type of community groups.

manner. The upper part of the page shows the exercise number; then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of 13-year-olds choosing each answer is also shown.

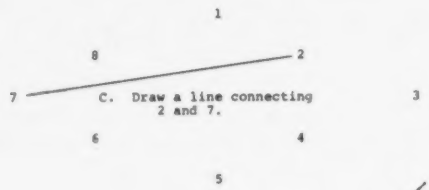
The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures) and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. In addition to the percentages, the effects can also be seen graphically. Note the vertical dashed line descending from the end of the national percentage bar. This allows a visual comparison of each group percentage of success with the national level.

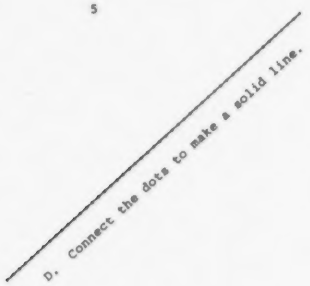
Exercise 303



Cat

B. Write the word "cat" on this line.



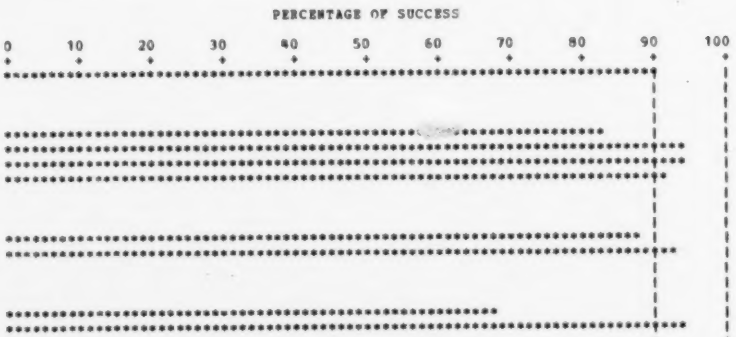


THE GRAPH BELOW REFERS TO THE PERCENTAGE WHO CORRECTLY FOLLOWED ALL FOUR DIRECTIONS.

TOR 139 1/2 14**T303050 R00300D0 9 13

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
90.1	---	NATIONAL	
		REGION	
81.9	-8.3*		Southeast
93.1	3.0*		West
93.3	3.2*		Central
91.8	1.6		Northeast
		SEX	
87.6	-2.5*		Male
92.9	2.7*		Female
		COLOR	
67.8	-22.3*		Black
93.3	3.2*		White
		PARENTAL EDUCATION	
72.8	-17.3*		No High School
87.8	-2.8		Some High School
92.3	2.2		Graduated High Sch.
96.5	6.3*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
81.4	-8.7*		Extreme Inner City
77.3	-12.9*		Extreme Rural
90.6	0.4		Small City
88.9	-1.3		Medium City
93.4	3.3		Rest Of Big City
94.1	3.9*		Suburban Fringe
96.7	6.6*		Extreme Aff Suburb



Exercise 303 -- Age 13

Overlap: Age 9

Objective III: Use what is read.
Subobjective B: Follow written directions.

Exercise 307 asks children to carry out four simple instructions. Acceptable responses on parts A and D consist of lines that leave up to three dots at either end blank. The line must be continuous, although a few dots may be missed along the way. Any word recognizable as cat is considered an acceptable response to part B. In part C, only reasonably straight lines from 2 to 7 are considered to be acceptable responses. A small percentage drew curved lines that terminated at the desired points; especially ccmmon for this group was a continuous line that connected 2, 3, 4, 5, 6, and 7.

Ninety percent of all 13-year-olds responded correctly to all four directions but the percentage of correct responses was not the same for each of the four parts separately. The highest percentage was given in part B (98%) and lower percentages were given in parts A (94%), D (93%), and C (92%).

Exercise 307

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

— Omitted due to —

— Copyright restrictions —

Nat'l % Choosing Each Answer | How long does it take to bake English muffins on top of range?

7.5%	○ 8-10 minutes
1.6%	○ Exactly 10 minutes
66.2%	● About 30 minutes
13.1%	○ 1 1/4 hours
7.5%	○ More than 3 hours
3.0%	○ I don't know.
1.3%	No response

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702 32 3/1 03*X307011 91000000 9 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
66.2	---	NATIONAL	
		REGION	
59.7	-7.5*	Southeast	
70.4	4.2	West	
68.5	2.3	Central	
66.9	0.7	Northeast	
		SEX	
60.1	-6.1*	Male	
72.8	6.5*	Female	
		COLOR	
58.7	-11.5*	Black	
69.6	2.8*	White	
		PARENTAL EDUCATION	
45.5	-20.7*	No High School	
59.3	-6.9*	Some High School	
66.6	0.4	Graduated High Sch.	
74.6	8.4*	Post High School	
		SIZE-AND-TYPE OF COMMUNITY	
55.3	-10.9*	Extreme Inner City	
53.9	-12.3*	Extreme Rural	
67.0	0.8	Small City	
65.6	-0.6	Medium City	
62.6	-3.6	Rest Of Big City	
71.8	5.6*	Suburban Fringe	
70.8	4.6	Extreme Aff Suburb	

Exercise 307 -- Age 13

Overlap: Ages 9, 17, and adult

Objective 1: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Exercise 307 requires children to understand the relatively complex directions in a recipe. Each of the incorrect answers consists of a time period that is mentioned in or could be derived from the recipe: 8-10 minutes is the kneading time, 10 minutes is required to let the dough rest; 1 1/4 hours are required each time the dough rises; and over 3 hours are required for the whole operation. The last response makes sense if "bake" is taken to mean the entire preparation. After reading the recipe, 66% of the 13-year-olds correctly indicated that English muffins take about 30 minutes to bake on the range.

Exercise 308

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

Omitted due to copyright restriction

Nat'l % Choosing Each Answer	How are these English muffins cooked?
2.5%	○ They are fried in butter.
24.7%	○ They are baked in the oven.
66.1%	● They are baked on a griddle.
1.9%	○ They are deep-fried in hot fat.
3.6%	○ I don't know.
1.3%	No response

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703 09 3/1 03*X308011 R1000000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
66.1	---	NATIONAL		**********
		REGION		
55.8	-9.3*		Southeast	**********
68.2	2.1		West	**********
68.7	2.6		Central	**********
69.7	3.6		Northeast	**********
		SEX		
59.1	-7.0*		Male	**********
73.4	7.3*		Female	**********
		COLOR		
49.6	-16.5*		Black	**********
69.7	3.6*		White	**********
		PARENTAL EDUCATION		
57.6	-8.5		No High School	**********
63.5	-2.6		Some High School	**********
66.1	-0.0		Graduated High Sch.	**********
73.3	7.2*		Post High School	**********
		SIZE-AND-TYPE OF COMMUNITY		
55.7	-10.3*		Extreme Inner City	**********
69.0	1.9		Extreme Rural	**********
65.1	-0.9		Small City	**********
67.3	1.2		Medium City	**********
63.2	-2.9		Rest Of Big City	**********
66.9	0.8		Suburban Fringe	**********
72.5	6.5*		Extreme Aff Suburb	**********

Exercise 308 -- Age 13

Overlap: Age 17

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Exercise 308 asks another question about the English muffin recipe, and approximately the same percentage of 9-year-olds gave the correct response. The only other popular response--given by a quarter of the 13-year-olds--was that English muffins are baked in an oven.

Exercise 309

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

— Omitted due to —

— copyright restrictions —

— —

dozen.

Nat'l % Choosing Each Answer	After softening the yeast in the water, what 4 ingredients are combined next?
21.9%	● Scalded milk, sugar, salt, shortening
8.2%	○ Yeast, warm water, scalded milk, sugar
7.8%	○ 2 cups flour, scalded milk, sugar, salt
7.0%	○ 2 cups flour, warm water, scalded milk, sugar
46.9%	○ None of the above
7.4%	○ I don't know.
1.0%	No response

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*04 04 3/1 01*X309012 R0200000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
21.9	---	NATIONAL		**********
		REGION		
21.2	-0.6		Southeast	**********
22.4	0.5		West	**********
22.2	0.3		Central	**********
21.7	-0.2		Northeast	**********
		SEX		
16.6	-5.2*		Male	********
26.9	5.1*		Female	**********
		COLOR		
18.3	-7.5*		Black	*******
23.2	1.3*		White	**********
		PARENTAL EDUCATION		
12.9	-9.0*		No High School	******
19.3	-3.6		Some High School	********
20.9	-1.0		Graduated High Sch.	**********
26.6	4.8*		Post High School	**********
		SIZE-AND-TYPE OF COMMUNITY		
16.4	-5.5*		Extreme Inner City	********
22.5	0.6		Extreme Rural	**********
22.7	0.8		Small City	**********
20.6	-1.3		Medium City	**********
21.0	-0.9		Rest Of Big City	**********
20.6	-1.3		Suburban Fringe	**********
27.2	5.3*		Extreme Aff Suburb	**********

Exercise 309 -- Age 13

Overlap: Age 17

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Exercise 309 asks yet another question about the English muffin recipe, but the question appears to be more difficult since only 22% of the nation's 13-year-olds correctly identified the next four ingredients as "scalded milk, sugar, salt, shortening," while almost half of the 13-year-olds answered with "none of the above"--not simply "I don't know" or a guess. Students in certain groups (girls, Whites, those with post high school educated parents, those in the affluent-suburb group) tended to choose both the correct answer and "none of the above." To those who are not familiar with recipes, "after shoftening the yeast in water" might signal the presence of only one ingredient, yeast. If so, the next four ingredients would be water, milk, sugar, and salt, a combination not included among the suggested answers.

Exercise 31001

Read the directions from a can of insecticide spray and answer the questions which follow them.

> ABC BUG SPRAY
>
> Kills-Spiders, roaches, ants, and most other crawling insects.
>
> Directions: Spray surfaces over which insects may crawl: doorways, window ledges, cracks, etc. Hold can approximately 10 inches from surface. Do not use near uncovered foods or small children. Toxic.

Nat'l % Choosing Each Answer	A. Which of the following will probably NOT be killed by the spray?
1.6%	○ Ants
19.5%	○ Caterpillars
73.7%	● Flies
2.1%	○ Roaches
1.3%	○ Spiders
1.6%	○ I don't know.
0.3%	No response

?05 05 3/1 03*X310011 %10000D0 13

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
73.7	---	NATIONAL	
		REGION	
63.2	-10.5*	Southeast	
72.9	-0.8	West	
76.3	2.6	Central	
80.3	6.6*	Northeast	
		SEX	
73.8	0.1	Male	
73.6	-0.1	Female	
		COLOR	
49.3	-24.4*	Black	
77.6	3.9*	White	
		PARENTAL EDUCATION	
49.6	-24.1*	No High School	
64.5	-9.2*	Some High School	
75.6	1.9	Graduated High Sch.	
81.9	8.2*	Post High School	
		SIZE-AND-TYPE OF COMMUNITY	
69.4	-4.3	Extreme Inner City	
53.3	-20.4*	Extreme Rural	
70.1	-3.6	Small City	
79.7	5.9	Medium City	
75.9	2.2	Rest Of Big City	
77.8	4.1	Suburban Fringe	
86.9	13.2*	Extreme Aff Suburb	

Exercise 31001 -- Age 13

Objective I: Comprehend what is read.
Subobjective C: Find specific details in paragraphs, passages, and longer works.

Answering Exercise 31001 requires not only understanding the directions, but also recognizing that flies are not crawling insects. Seventy-four percent of the 13-year-olds were able to correctly identify which of the insects would probably not be killed by the spray. Few responded with insects that the directions specifically listed: ants, roaches, spiders. But 19% responded with "caterpillars," which, though not specifically mentioned, was implictly categorized in the directions with "other crawling insects."

Exercise 31002

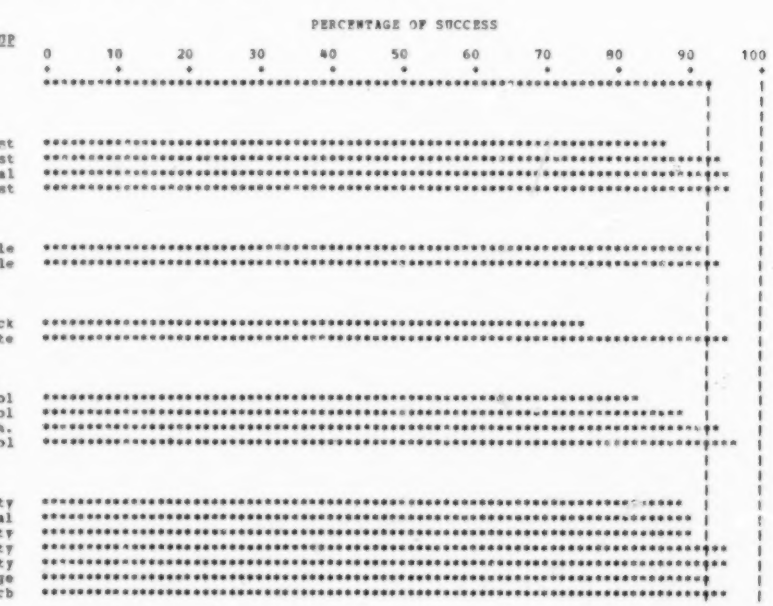
Read the directions from a can of insecticide spray and answer the questions which follow them.

> ABC BUG SPRAY
>
> Kills-Spiders, roaches, ants, and most other crawling insects.
>
> Directions: Spray surfaces over which insects may crawl: doorways, window ledges, cracks, etc. Hold can approximately 10 inches from surface. Do not use near uncovered foods or small children. Toxic.

Nat'l % Choosing Each Answer	B. How far from surface to be sprayed should you hold the can?
1.0%	○ 2 inches
1.7%	○ 6 inches
92.4%	● 10 inches
0.5%	○ 1 foot
0.5%	○ 2 feet
1.0%	○ I don't know.
1.0%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP
92.8	---	NATIONAL
		REGION
95.9	-6.6*	Southeast
91.2	0.8	West
94.5	2.0	Central
98.7	2.3	Northeast
		SEX
90.7	-1.7*	Male
93.9	1.5*	Female
		COLOR
75.6	-16.8*	Black
95.2	2.8*	White
		PARENTAL EDUCATION
92.9	-9.5*	No High School
98.5	-3.9*	Some High School
97.8	1.0	Graduated High Sch.
96.9	4.4*	Post High School
		SIZE-AND-TYPE OF COMMUNITY
88.9	-3.5	Extreme Inner City
90.3	-2.1	Extreme Rural
90.3	-2.1	Small City
95.3	2.9	Medium City
94.7	2.3	Rest Of Big City
92.5	0.1	Suburban Fringe
94.7	2.3	Extreme Aff Suburb



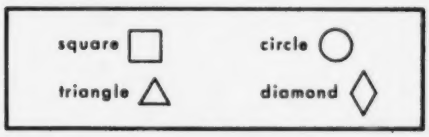
Exercise 31002 -- Age 13

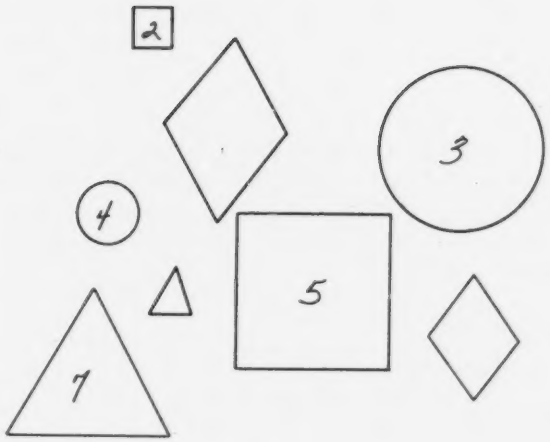
Objective I: Comprehend what is read.
Subobjective C: Find specific details in paragraphs, passages, and longer works.

Exercise 31002 also requires that students read the bug spray directions, but to answer the question, they need only find a number in the text. Ninety-two percent of the 13-year-olds correctly identified the desirable distance for spraying.

Exercise 313

Look at the shapes inside the box and what they are called. Then follow the directions below the box.





A. Write the number 3 in the large circle on the opposite page.

B. Write the number 2 in the small square on the opposite page.

C. Write the number 7 in the large triangle on the opposite page.

D. Write the number 4 in the small circle on the opposite page.

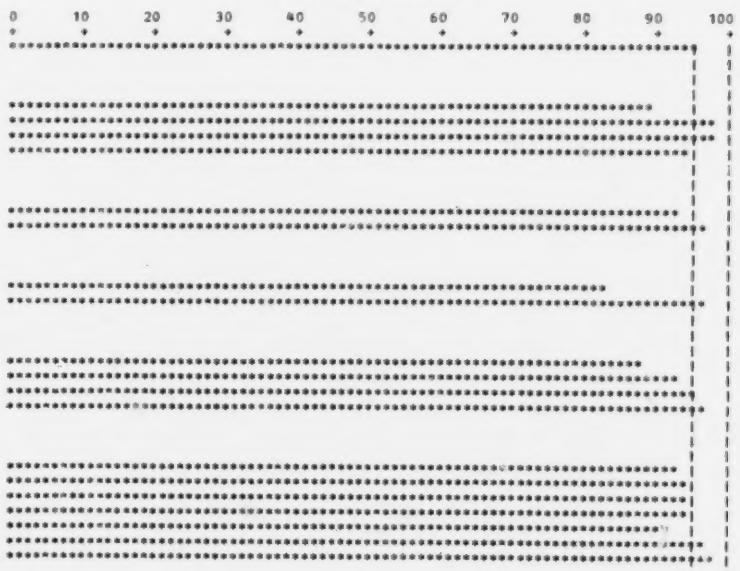
E. Write the number 5 in the large square on the opposite page.

T09 133 1/2 15*X313060 R00300D0 13

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
94.4	---	NATIONAL	
		REGION	
98.2	-6.2*		Southeast
96.9	2.5*		West
97.6	3.2*		Central
94.0	-0.4		Northeast
		SEX	
92.7	-1.7*		Male
96.2	1.8*		Female
		COLOR	
82.0	-12.4*		Black
96.3	1.9*		White
		PARENTAL EDUCATION	
87.9	-6.5*		No High School
92.5	-1.8		Some High School
95.2	0.8		Graduated High Sch.
96.8	2.4*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
92.0	-2.4*		Extreme Inner City
93.5	-0.9		Extreme Rural
93.5	-0.9		Small City
93.6	-0.8		Medium City
91.5	-2.9		Rest Of Big City
96.5	2.1*		Suburban Fringe
97.2	2.8*		Extreme Aff Suburb

PERCENTAGE OF SUCCESS



Exercise 313 -- Age 13

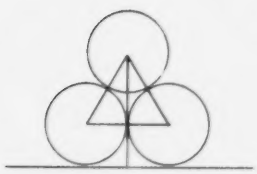
Objective III: Use what is read.
Subobjective B: Follow written directions.

Ninety-four percent of all 13-year-olds followed the five directions completely. A correct response consists of marking the correct numbers in and only in the correct geometric forms. No large differences separated the number of correct responses given to each part of the exercise; the percentage of correct responses ranged from 98% on part A to 96% on part B.

Exercise 314

Read the following paragraph and do what it tells you to do.

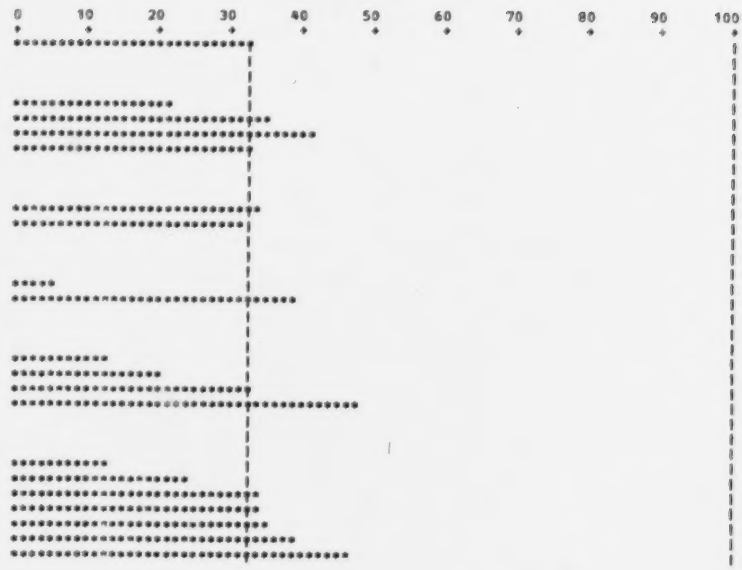
Draw a horizontal line near the bottom of the page. Draw two circles approximately one-inch in size above the line which just touch each other and the line. Draw another circle of the same size above the first two which just touches both. Now connect the centers of the three circles with straight lines. Draw a vertical line from the top of the triangle in the picture to the line you drew first.



T10 278 1/2 15*I314060 R0030000 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP
32.9	---	NATIONAL
		REGION
21.0	-11.9*	Southeast
34.6	1.7	West
41.7	8.8*	Central
33.0	0.1	Northeast
		SEX
34.1	1.2	Male
31.8	-1.1	Female
		COLOR
4.8	-28.1*	Black
39.0	6.1*	White
		PARENTAL EDUCATION
12.4	-20.5*	No High School
20.3	-12.6*	Some High School
32.7	-0.2	Graduated High Sch.
47.4	14.5*	Post High School
		SIZE-AND-TYPE OF COMMUNITY
12.8	-20.1*	Extreme Inner City
24.0	-8.9*	Extreme Rural
33.7	0.8	Small City
33.7	0.8	Medium City
34.4	1.5	Rest Of Big City
38.8	5.9*	Suburban Fringe
45.9	13.0*	Extreme Aff Suburb



Exercise 314 -- Age 13

Overlap: Age 17 and adult

Objective III: Use what is read.
Subobjective B: Follow written directions.

Thirty-three percent of all 13-year-olds correctly followed the entire set of directions and drew the correct figure. Eighty-six percent of the 13-year-olds correctly drew a horizontal line near the bottom of the page, but only 77% of those who had completed the first part were able to draw two circles that: (a) were approximately one inch in size, (b) were above the line, (c) touched each other, and (d) touched the line. Seventy-five percent of all 13-year-olds were able to draw another circle of the same size above and touching the first two circles (even though the first two circles in this case might not have been correctly placed). Fifty percent of all 13-year-olds were then able to connect the centers of the three circles with straight lines (even though, in this case, none of the three circles was necessarily correctly placed). Forty-four percent succeeded in drawing a vertical line from the top of the triangle (though again, the triangle itself was not necessarily correct) to the original horizontal line.

Exercise 31501

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

A. How is the first dealer chosen? Each player draws card from deck; player with highest card becomes dealer.

T11 18 3/1 01*X315013 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
97.5	---	NATIONAL		**********
		REGION		
87.5	-7.0*		Southeast	**********
87.3	-0.2		West	**********
89.8	1.9		Central	**********
92.1	4.6*		Northeast	**********
		SEX		
94.4	-3.0*		Male	**********
90.5	3.0*		Female	**********
		COLOR		
73.3	-14.2*		Black	**********
90.2	2.8*		White	**********
		PARENTAL EDUCATION		
70.9	-16.6*		No High School	**********
93.8	-3.6		Some High School	**********
83.6	2.2*		Graduated High Sch.	**********
92.7	5.2*		Post High School	**********
		SIZE-AND-TYPE OF COMMUNITY		
83.3	-8.2		Extreme Inner City	**********
91.9	-5.6		Extreme Rural	**********
88.9	-2.5		Small City	**********
90.1	2.6		Medium City	**********
89.7	2.2		Rest Of Big City	**********
90.3	2.8		Suburban Fringe	**********
94.5	7.0*		Extreme Aff Suburb	**********

Exercise 31501 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

Exercise 31501 is the first of eight questions about the directions to the card game Win-Em-All. The questions are separated into two sets of four, and each set is administered to a different group of 13-year-olds.

The correct answer to this question requires reading only the first two sentences of the instructions. About 87% of the 13-year-olds correctly identified the first dealer as the player who draws the highest card. Another correct response is that the winner of the last game is the dealer of the next (see the last line of the directions), but this response was given by less than 1% of the 13-year-olds.

Exercise 31502

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

B. Is this a game for adults as well as for children? Yes

---

711 18 9/1 01*X315023 R01300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
91.3	---	NATIONAL		
		REGION		
87.3	-4.0*		Southeast	
91.6	0.3		West	
93.6	2.3		Central	
92.3	0.9		Northeast	
		SEX		
87.6	-3.7*		Male	
95.1	3.7*		Female	
		COLOR		
78.4	-13.0*		Black	
93.8	2.5*		White	
		PARENTAL EDUCATION		
78.6	-12.7*		No High School	
91.0	-0.3		Some High School	
92.2	0.8		Graduated High Sch.	
96.7	5.4*		Post High School	
		SIZE-AND-TYPE OF COMMUNITY		
83.2	-8.1*		Extreme Inner City	
90.7	-0.6		Extreme Rural	
90.6	-0.7		Small City	
92.5	1.2		Medium City	
90.3	-1.1		Rest Of Big City	
94.1	2.8*		Suburban Fringe	
96.0	4.6*		Extreme Aff Suburb	

Exercise 31502 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

This second question about Win-Em-All requires only that the student read the subtitle, "A card game for the whole family--any number can play." "Yes" or any affirmative answer is acceptable, and over 90% of the 13-year-olds successfully completed this exercise.

Exercise 31503

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

C. What do you do if you have no more cards in your stack? ____

drop out of game

711 18 7/1 01*X315033 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS (0 10 20 30 40 50 60 70 80 90 100)
81.7	---	NATIONAL		
		REGION		
76.3	-5.4*		Southeast	
82.2	0.5		West	
84.1	2.4		Central	
83.6	1.9		Northeast	
		SEX		
77.6	-4.1*		Male	
85.8	4.1*		Female	
		COLOR		
60.2	-21.5*		Black	
85.7	4.0*		White	
		PARENTAL EDUCATION		
58.7	-23.0*		No High School	
78.6	-3.1		Some High School	
83.8	2.1		Graduated High Sch.	
89.5	7.8*		Post High School	
		SIZE-AND-TYPE OF COMMUNITY		
78.1	-3.6		Extreme Inner City	
77.2	-4.5		Extreme Rural	
82.2	0.5		Small City	
83.4	1.7		Medium City	
79.8	-2.3		Rest Of Big City	
82.6	0.9		Suburban Fringe	
85.5	3.9		Extreme Aff Suburb	

Exercise 31503 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

The correct answer to the third question about Win-Em-All is found in the third paragraph of the directions. Only about 82% of the 13-year-olds recognized that players with no more cards are required to drop out of the game.

Exercise 31504

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

D. Who plays first? player to the left of dealer

711 18 9/1 01*Y315043 R00300D9 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
60.3	---	NATIONAL		**********
		REGION		
50.9	-9.4*		Southeast	**********
62.0	1.8		West	**********
65.5	5.2*		Central	**********
61.6	1.3		Northeast	**********
		SEX		
54.4	-5.9*		Male	**********
66.2	5.9*		Female	**********
		COLOR		
29.9	-30.5*		Black	**********
66.2	5.9*		White	**********
		PARENTAL EDUCATION		
32.7	-27.5*		No High School	**********
48.6	-11.7*		Some High School	**********
63.8	3.5		Graduated High Sch.	**********
72.2	11.9*		Post High School	**********
		SIZE-AND-TYPE OF COMMUNITY		
50.5	-9.8*		Extreme Inner City	**********
56.7	-3.5		Extreme Rural	**********
60.9	0.6		Small City	**********
59.3	-0.9		Medium City	**********
50.3	-10.0		Rest Of Big City	**********
67.3	7.0*		Suburban Fringe	**********
68.3	8.0*		Extreme Aff Suburb	**********

Exercise 31504 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

The fourth question about Win-Em-All is the last one asked of the same group of 13-year-olds. The answer requires them to refer back to the second sentence of the instructions. Since only about 60% of the 13-year-olds correctly identified the player to the left of the dealer as the one who plays first, the percentage who correctly answered this question is noticeably lower than the percentages for the previous three parts.

Exercise 31601

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

A. Who deals first? *person with highest card after each player has drawn one card from deck*

712 17 3/1 01*X116013 80330000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
76.4	---	NATIONAL		
		REGION		
68.1	-7.6*		Southeast	
74.5	-1.9		West	
79.7	3.3		Central	
81.1	4.6*		Northeast	
		SEX		
71.9	-4.6*		Male	
80.7	4.5*		Female	
		COLOR		
89.3	-27.2*		Black	
81.7	6.5*		White	
		PARENTAL EDUCATION		
60.5	-15.9*		No High School	
67.5	-8.9*		Some High School	
78.3	1.8		Graduated High Sch.	
90.5	8.1*		Post High School	
		SIZE-AND-TYPE OF COMMUNITY		
63.7	-12.5		Extreme Inner City	
60.6	-15.8*		Extreme Rural	
77.9	1.0		Small City	
75.9	-1.0		Medium City	
80.6	4.2		Rest Of Big City	
81.0	4.6*		Suburban Fringe	
86.1	9.6*		Extreme Aff Suburb	

Exercise 31601 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

The next four questions about Win-Em-All were asked of an entirely different set of 13-year-olds. Even though the first question (Who deals first?) closely resembles the first question in the previous series of questions (How is the first dealer chosen?), the percentage of success is noticeably lower. Only about 76% of the 13-year-olds recognized that the person with the highest card becomes the first dealer.

Exercise 31602

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

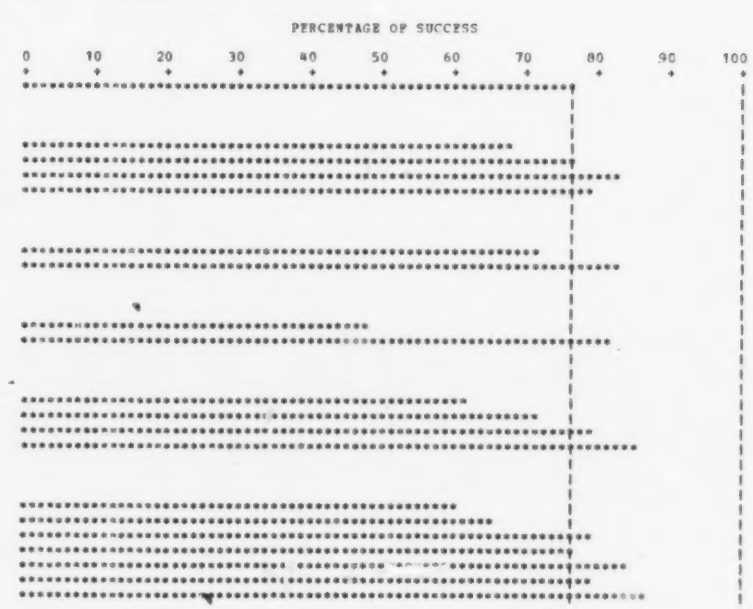
The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

B. How many people may play the game? Any Number

712 17 5/1 01*X316023 R0030000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
76.9	---	NATIONAL	
		REGION	
67.4	-9.5*		Southeast
76.4	-0.5		West
82.5	5.6*		Central
79.1	2.2		Northeast
		SEX	
71.4	-5.5*		Male
82.2	5.8*		Female
		COLOR	
47.4	-29.5*		Black
81.9	5.0*		White
		PARENTAL EDUCATION	
61.4	-15.4*		No High School
71.3	-5.6		Some High School
78.6	1.8		Graduated High Sch.
84.9	8.0*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
60.2	-16.7*		Extreme Inner City
65.2	-11.7*		Extreme Rural
78.4	1.5		Small City
76.5	-0.3		Medium City
83.2	6.4		Rest Of Big City
78.5	1.7		Suburban Fringe
86.5	9.7*		Extreme Aff Suburb



Exercise 31602 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

The simplest--and most common--answers to this question about Win-Em-All are phrases from the subtitle of the instructions "any number" and "the whole family." Other correct answers included "a whole bunch" and even "52," since the number of players is really limited by the number of cards. Approximately 77% of the 13-year-olds successfully answered this question.

Exercise 31603

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

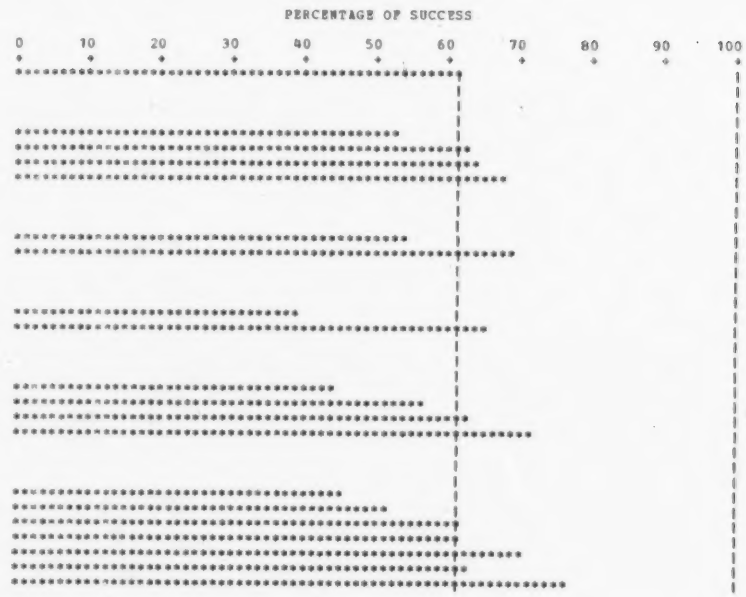
C. What happens to a trick if there is a tie for high card?

Remains in center; winner of next round wins these also

T12 17 7/1 01*X316033 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
61.6	---	NATIONAL	
		REGION	
52.0	-9.6*		Southeast
62.4	0.8		West
[illegible].1	2.4		Central
[illegible].9	5.3		Northeast
		SEX	
54.3	-7.3*		Male
68.8	7.2*		Female
		COLOR	
38.[illegible]	-22.7*		Black
65.[illegible]	3.9*		White
		PARENTAL EDUCATION	
43.7	-18.3*		No High School
56.4	-5.3		Some High School
62.5	0.9		Graduated High Sch.
70.9	9.2*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
45.4	-16.3*		Extreme Inner City
51.2	-10.4		Extreme Rural
61.0	-0.6		Small City
61.3	-0.3		Medium City
69.5	7.9		Rest Of Big City
62.9	1.3		Suburban Fringe
76.8	18.7*		Extreme Aff Suburb



Exercise 31603 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

The most correct response to this question about Win-Em-All is that the winner of the next round wins the trick if there is a tie for the high card, but only 6% of the 13-year-olds included the results of the next trick in their answer. "No one wins" or "the trick stays in the center of the table" were more common--and also correct--responses. Altogether, about 62% of the children understood the procedure for ties.

Exercise 31604

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

D. How is the winner of the game determined?

the person collecting all of the cards

712 17 9/1 01*X316043 R0030000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
44.9	---	NATIONAL	**** **********
		REGION	
35.2	-8.8*	Southeast	**********
41.0	-3.9	West	**********
49.1	4.1	Central	**********
51.5	6.6*	Northeast	**********
		SEX	
40.7	-4.2*	Male	**********
49.1	4.1*	Female	**********
		COLOR	
18.7	-26.2*	Black	**********
49.6	4.7*	White	**********
		PARENTAL EDUCATION	
25.5	-18.4*	No High School	**********
37.0	-7.9*	Some High School	**********
47.2	2.3	Graduated High Sch.	**********
56.2	11.2*	Post High School	**********
		SIZE-AND-TYPE OF COMMUNITY	
29.6	-15.3*	Extreme Inner City	**********
33.4	-11.5*	Extreme Rural	**********
49.0	3.1	Small City	**********
46.0	1.1	Medium City	**********
41.1	-3.8	Rest Of Big City	**********
46.7	1.8	Suburban Fringe	**********
52.8	7.8	Extreme Aff Suburb	**********

Exercise 31604 -- Age 13

Overlap: Age 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

Correct responses to the last question about Win-Em-All consist of mentioning either that the one who has all the cards wins the game or, inversely, that when everyone else is out of cards, the remaining player wins. Both the last paragraph and, by implication, the name of the game suggest the correct answer. Less than half of the 13-year-olds recognized how the winner of the game is determined.

CHAPTER 5

RESULTS FOR AGE 17

The 17-year-olds participating in the 1970-71 Reading assessment fall into two classifications: (1) the "in-school" 17-year-olds and (2) the "out-of-school" 17-year-olds who were not enrolled in public or private schools either because of dropping out or early completion. The latter were included to provide in the assessment a more balanced representation of all 17-year-olds. The "in-school" 17-year-olds participating in the assessment were born between October 1, 1953, and September 30, 1954. About three-fourths of them were enrolled in the eleventh grade; of the remainder, about half were enrolled in the tenth grade and about half in the twelfth grade. The "out-of-school" 17-year-olds who participated in the assessment were: (1) not enrolled in public or private school during March, 1970, and were born between October 1, 1952, and September 30, 1953[1] or (2) not enrolled in public or private school during January, 1971 and were born between October 1, 1953, and September 30, 1954.

First, we describe each group's overall performance on the Theme 3 exercises; then we indicate those exercises on which specific group behaviors differ atypically from the group's median level; finally, we present the exercises individually and describe the results.

Eighteen specific behaviors on written directions are summarized at age 17. Twelve of these are described in detail. The other six represent unreleased exercises to be used in future assessments. Exhibit 5-1 shows the distribution of the 18 behaviors for each group relative to the national level indicated by the Ø line. A group's median level is indicated by an arrow (→). A typical behavior for the group is shown by a box with an X (☒), and an atypical behavior is indicated by an open box (☐).

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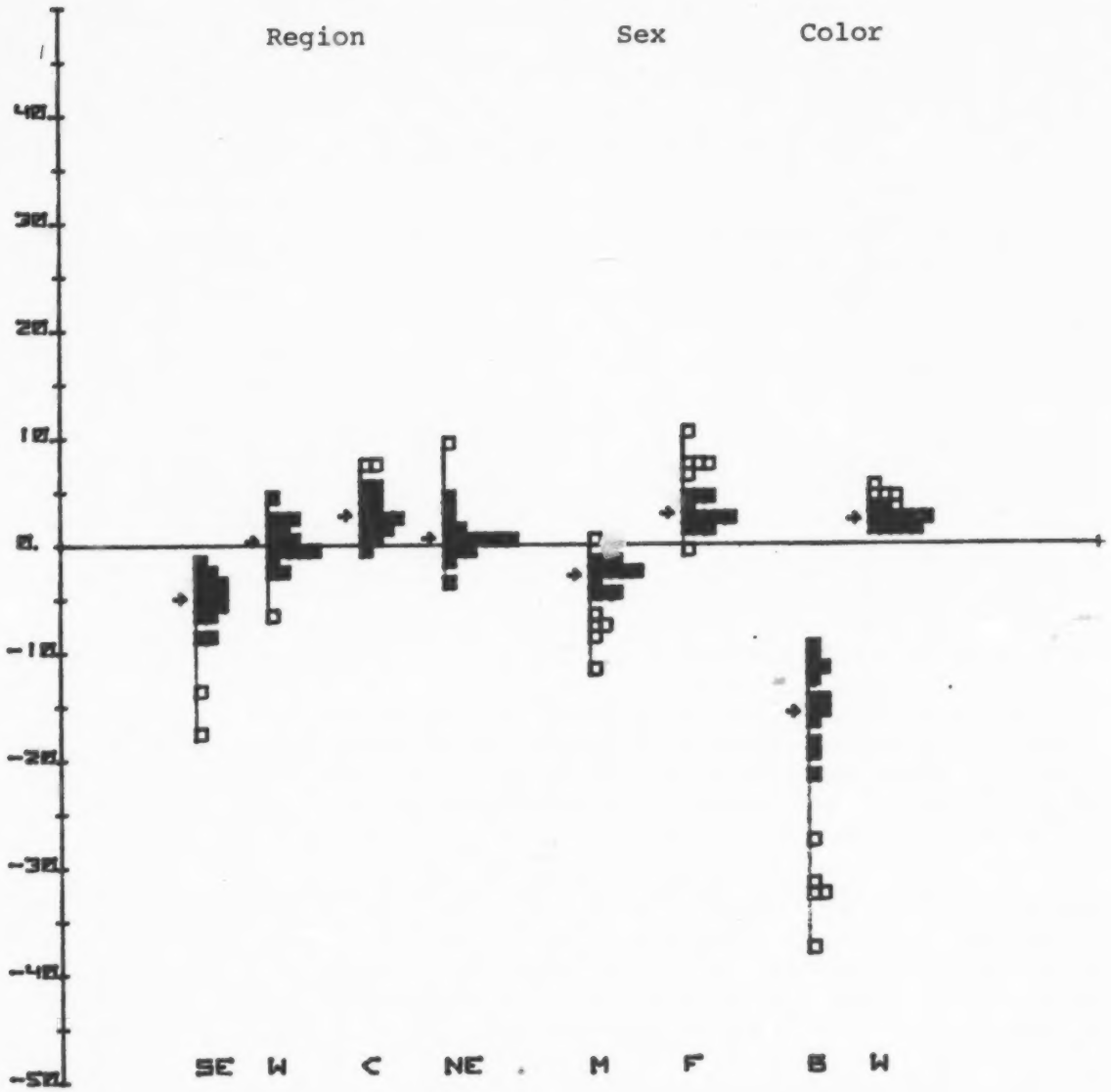
[1]These respondents were actually 18-year-olds who were included in the sample to obtain a larger representation. It was deemed that one year's difference in age would make little difference in the way they responded since they were out of school.

Exhibit 5-1A

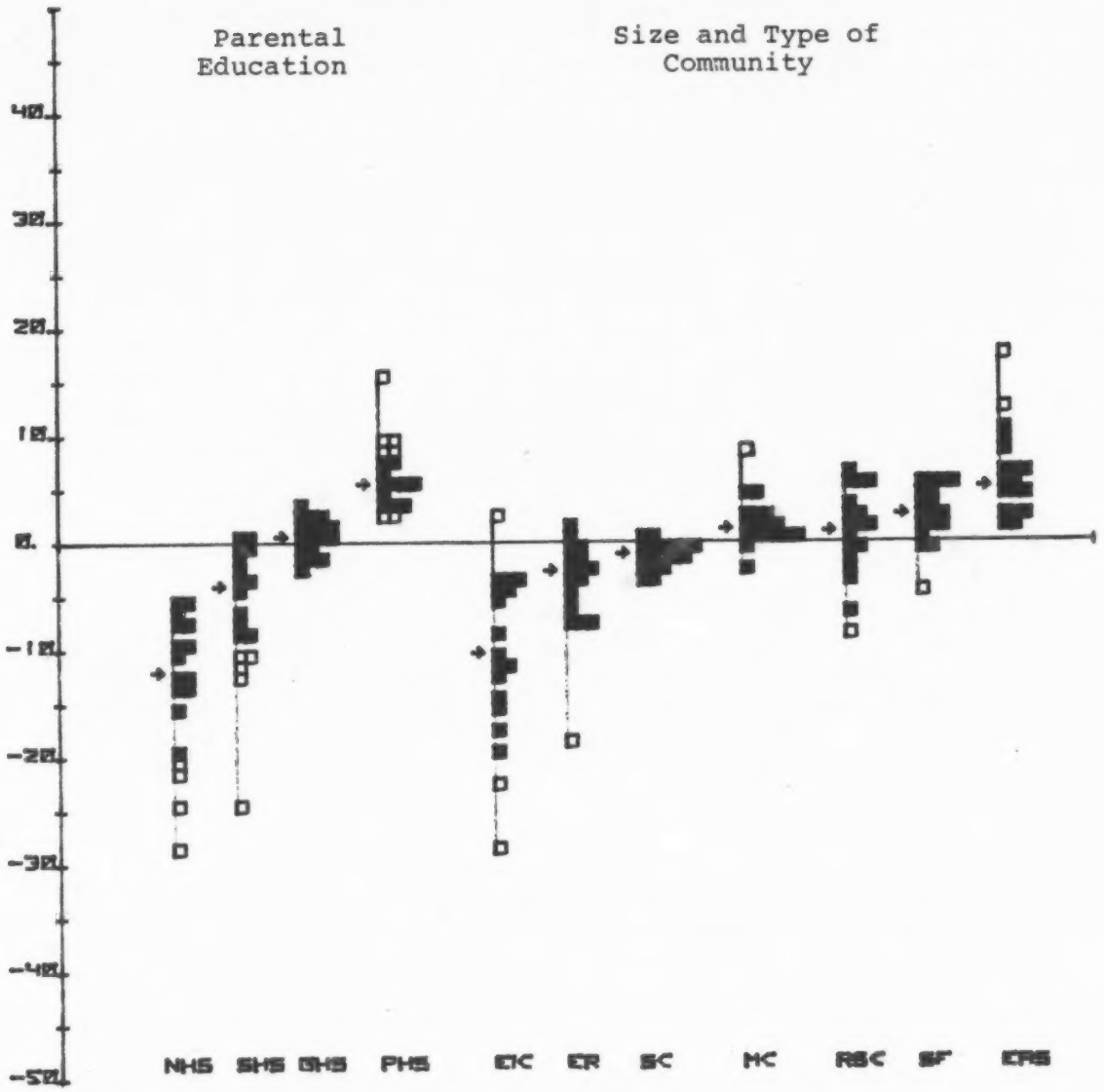
Distributions of Effects for Age 17



Median Effect	-4.9		2.8		-2.8		-15.6	
		0.4		0.6		2.9		2.3

Exhibit 5-1B

Distributions of Effects for Age 17



Median Effect	-12.0		0.6		-10.3		-1.1		1.0		5.1
		-4.0		5.4		-2.7		1.2		2.6	

When a group's overall behavior has been described as tending to be above or tending to be below or as characteristically above or characteristically below the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level or (2) atypically closer to[2] the national level. When a group's overall behavior has been described as being about the same as the national level, a specific behavior for that group can be atypically high or low relative to the group's median level.

Region

Two regions, the Southeast and the Central region, demonstrated directional characteristics; results for the other two regions were closer to the national levels and did not show directional tendencies.

The Southeast, with a median effect of -4.9, characteristically performed below the national level, while the Central region, with a median effect of 2.8, characteristically performed above the national level. Effects for both groups were atypically farther from the national level on Exercise R314, which involves drawing a geometric form from a complex set of instructions, and on Exercise R31504, which involves understanding the directions for a card game.

Seventeen-year-olds in the West and the Northeast performed consistently at about the national level with one notable exception. On Exercise U318, an unreleased exercise that involved filling out a lengthy application, youths in the West recorded an atypically low percentage of success, while those in the Northeast achieved an atypically high percentage of success.

Sex

Males characteristically performed below the national level, while females characteristically performed above the national level; almost 6 percentage points separate the median effects for the two groups. Both groups attained results atypically closer to the national level on Exercise R314, which involves drawing a geometric form from a complicated set of instructions.

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[2]An atypical effect (or behavior) described as closer to the national level may be: (1) less extreme in the same direction as a group's tendency or characteristic or (2) it may occur in the opposite direction from the group's median level.

However, both groups attained results atypically farther from the national level on Exercises R307, R308, and R309, all of which involve understanding a recipe, on Exercise R31504, which involves understanding the directions for a card game, and on Exercise U318, the unreleased exercise that involves filling out a long application form.

Color

The two color groups also showed characteristic directions: Blacks, with a median effect of -15.6, characteristically performed below the national level, while Whites, with a median effect of 2.3, characteristically performed above the national level. Both groups recorded results atypically farther from the national level on several exercises: R314, the one that involved drawing a geometric form; R31504 and R31604, both of which involve understanding directions for a card game; U318, the unreleased exercise that involves filling out an application form; and U302, the unreleased exercise that involves understanding the directions for a code.

Parental Education[3]

Seventeen-year-olds in the no-high-school group characteristically performed below the national level on the exercises in Theme 3. The group, with a median effect of -12.0, achieved results atypically farther from the national level on Exercises R314 (geometric form), R31504 (card game), U318 (application), and U302 (code).

The some-high-school group, with a median effect of -4.0, tended to perform below the national level, but showed no characteristic direction. Again, the only exceptional results show percentages atypically farther from the national level--on Exercises R307 (recipe), R314 (geometric form), R31604 (card game), U318 (application), and U305, an unreleased exercise about a newspaper advertisement.

Seventeen-year-olds in the graduated-from-high-school group consistently performed at about the national level. The group recorded no atypical results.

The post-high-school group, with the median effect of 5.4, characteristically performed above the national level of success.

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[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education groups.

The group achieved percentages atypically farther from the national level on Exercises R314, R31504, R31604, U302, and U318--all of which proved to be exceptionally difficult for the no-high-school or the some-high-school groups. Nevertheless, seventeen-year-olds in the post-high-school group achieved atypically low percentages on Exercises R31502 and R31601, both about directions for a card game

Size and Type of Community[4]

Seventeen-year-olds in the extreme-inner-city group, with a median effect of -10.3, characteristically performed below the national level of success. They recorded results atypically farther from the national level on Exercises R314 (geometric form) and U302 (code). Nonetheless, the group achieved a percentage atypically closer to the national level on Exercise U311, an unreleased exercise that involves understanding a complex set of instructions for performing a magic trick.

The extreme-rural group, with a median effect of -2.7, tended to perform below the national level but showed no characteristic direction. The group recorded a result atypically farther from the national level on Exercise U318, the one that involves filling out a lengthy application form.

Likewise, the small-city group, with a median effect of -1.1, tended to perform slightly below the national level, but showed no directional characteristic.

The medium-city group, with a median effect of 1.2, tended to perform above the national level of success. The group achieved a percentage atypically farther from the national level on Exercise U318.

The rest-of-big-city group tended to perform at about the national level of success. Nevertheless, the group achieved atypically low percentages of success on Exercises R31501, one of the exercises about the card game Win-Em-All.

The suburban-fringe group, with a median effect of 2.6, tended to perform above the national level of success. Seventeen-year-olds in the suburban-fringe group recorded a percentage atypically closer to the national level on Exercise U30502, which requires following the directions in a magazine advertisement.

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[4]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size and type of community groups.

The extreme-affluent-suburb group, with a median effect of 5.1, characteristically performed above the national level of success. The group achieved percentages atypically farther from the national level on Exercises R314 (geometric form) and R31504 (card game).

* * * * * * * * *

The data for each released exercise representing understanding words and word relationships is presented as follows. The upper part of the page shows the exercise number, age level, and the objective and major subobjective of the exercise. Then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of 17-year-olds choosing each answer is also shown.

The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures, and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. In addition to the percentages, the effects can also be seen graphically. Note the vertical dashed line descending from the end of the national percentage bar. This allows a visual comparison of each group percentage of success with the national level.

Exercise 307

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

— Omitted due to —

— copyright restrictions —

— —

Guess...

Nat'l % Choosing Each Answer	How long does it take to bake English muffins on top of range?
5.8%	○ 8-10 minutes
4.0%	○ Exactly 10 minutes
64.6%	● About 30 minutes
7.6%	○ 1 1/4 hours
12.7%	○ More than 3 hours
5.5%	○ I don't know.
1.8%	No response

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S08 03 3/1 03*X307011 R10000D0 9 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
64.6	---	NATIONAL	
		REGION	
57.8	-6.8*	Southeast	
66.8	2.1	West	
67.3	2.7	Central	
65.5	0.9	Northeast	
		SEX	
56.8	-7.8*	Male	
72.5	7.9*	Female	
		COLOR	
52.9	-11.7*	Black	
66.6	2.0*	White	
		PARENTAL EDUCATION	
59.5	-5.1	No High School	
53.8	-10.8*	Some High School	
62.0	-2.6	Graduated High Sch.	
71.7	7.1*	Post High School	
64.3	---	NATIONAL (17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
52.5	-11.7*	Extreme Inner City	
60.4	-3.9	Extreme Rural	
65.0	0.8	Small City	
61.6	-2.7	Medium City	
65.5	1.2	Rest Of Big City	
68.2	3.9	Suburban Fringe	
70.4	6.2*	Extreme Aff Suburb	

Exercise 307 -- Age 17

Overlap: Ages 9, 13, and adult

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Exercise 307 requires youths to understand the relatively complex directions in a recipe. Each of the incorrect answers consists of time periods that are mentioned in or could be derived from the recipe: 8-10 minutes is the kneading time, 10 minutes is required to let the dough rest; 1 1/4 hours are required each time the dough rises; and over 3 hours are required for the whole operation. The last response makes sense if "bake" is taken to mean the entire preparation. After reading the recipe, 65% of the 17-year-olds correctly indicated that English muffins take about 30 minutes to bake on the range.

Exercise 308

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

Omitted due to copyright restrictions

dozen.

Nat'l % Choosing Each Answer	How are these English muffins cooked?
0.9%	○ They are fried in butter.
19.0%	○ They are baked in the oven.
74.6%	● They are baked on a griddle.
1.6%	○ They are deep-fried in hot fat.
2.5%	○ I don't know.
1.3%	No response

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S07 10 3/1 03*X308011 R10000D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
74.6	---	NATIONAL	
		REGION	
66.6	-8.0*	Southeast	
76.9	2.3	West	
74.5	-0.1	Central	
78.6	4.0*	Northeast	
		SEX	
66.7	-7.9*	Male	
82.6	7.9*	Female	
		COLOR	
60.4	-14.2*	Black	
76.6	1.9*	White	
		PARENTAL EDUCATION	
64.8	-9.8*	No High School	
75.3	0.7	Some High School	
72.8	-1.8	Graduated High Sch.	
79.6	5.0*	Post High School	
75.2	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
72.2	-3.0	Extreme Inner City	
68.8	-6.4	Extreme Rural	
74.6	-0.6	Small City	
74.9	-0.3	Medium City	
80.4	5.8*	Rest Of Big City	
75.5	0.9	Suburban Fringe	
77.5	2.3	Extreme Aff Suburb	

Exercise 308 -- Age 17

Overlap: Age 13

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Exercise 308 asks another question about the English muffin recipe, but more 17-year-olds gave the correct response. The only other popular response--given by one-fifth of the 17-year-olds--was that English muffins are baked in an oven.

Exercise 309

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

— Omitted due to copyright restriction —

Nat'l % Choosing Each Answer	After softening the yeast in the water, what 4 ingredients are combined next?
37.9%	● Scalded milk, sugar, salt, shortening
5.2%	○ Yeast, warm water, scalded milk, sugar
2.8%	○ 2 cups flour, scalded milk, sugar, salt
3.0%	○ 2 cups flour, warm water, scalded milk, sugar
46.2%	○ None of the above
4.5%	○ I don't know.
0.4%	No response

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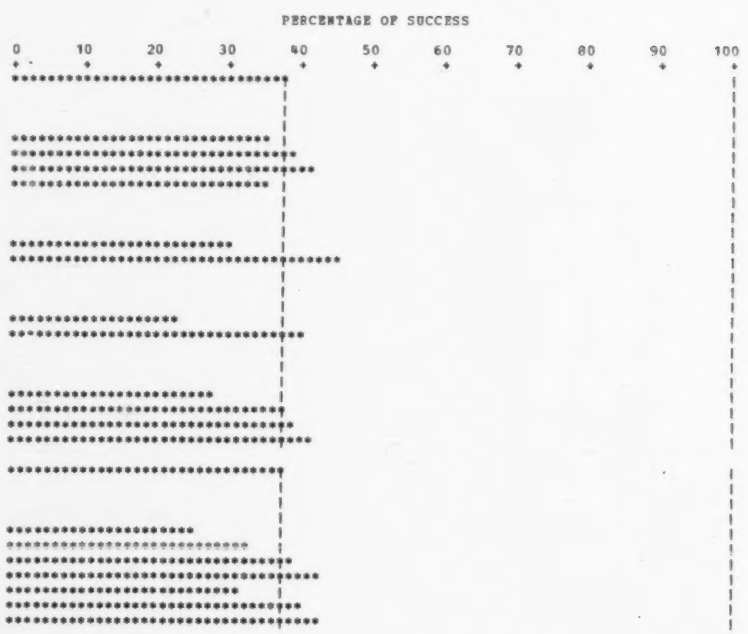
S09 07 3/1 01*X309012 B02000D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
37.9	---	NATIONAL	
		REGION	
35.3	-2.6		Southeast
39.1	1.2		West
41.1	3.2		Central
35.0	-2.8		Northeast
		SEX	
29.4	-8.4*		Male
45.2	7.4*		Female
		COLOR	
22.6	-15.3*		Black
39.9	2.0*		White
		PARENTAL EDUCATION	
27.9	-10.0*		No High School
37.0	-0.9		Some High School
39.2	1.4		Graduated High Sch.
40.9	3.0*		Post High School
38.0	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
25.6	-12.4*		Extreme Inner City
32.3	-5.7		Extreme Rural
38.7	0.7		Small City
42.8	4.8		Medium City
31.7	-6.3*		Rest Of Big City
40.5	2.5		Suburban Fringe
43.1	5.1		Extreme Aff Suburb



Exercise 309 -- Age 17

Overlap: Age 13

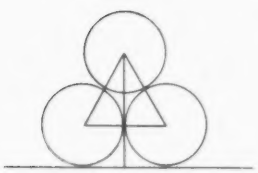
Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Exercise 309 asks yet another question about the English muffin recipe, but it appeared to be more difficult since only two-thirds of the nation's 17-year-olds correctly identified the next four ingredients as "scalded milk, sugar, salt, shortening," while almost half of the 17-year-olds answered with "none of the above"--not simply "I don't know" or a guess. Students in certain groups (girls, Whites, those with post high school educated parents, those in the affluent-suburb group) tended to choose both the correct answer and "none of the above." To those who are not familiar with recipes, "after softening the yeast in water" might signal the presence of only one ingredient, yeast. If so, the next four ingredients would be water, milk, sugar, and salt, a combination not included among the suggested answers.

Exercise 314

Read the following paragraph and do what it tells you to do.

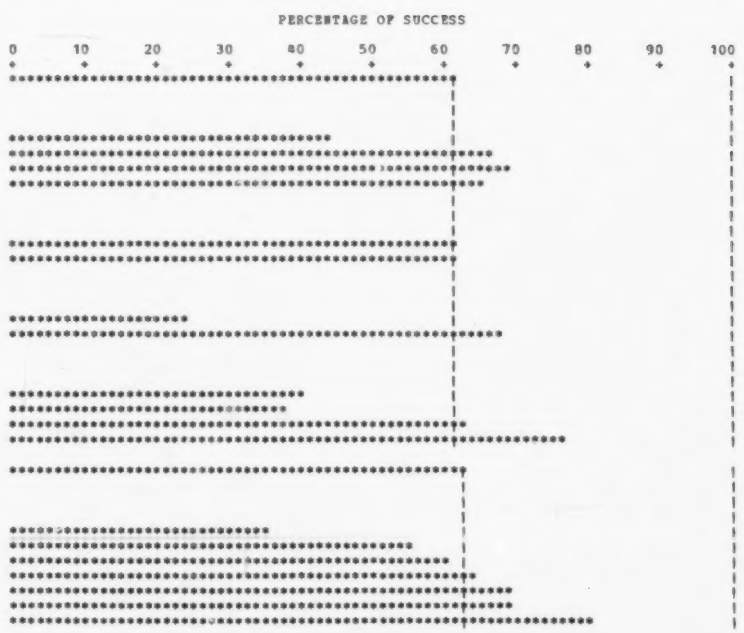
Draw a horizontal line near the bottom of the page. Draw two circles approximately one-inch in size above the line which just touch each other and the line. Draw another circle of the same size above the first two which just touches both. Now connect the centers of the three circles with straight lines. Draw a vertical line from the top of the triangle in the picture to the line you drew first.



S08 14B 1/2 15*X314060 R00300D0 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
61.6	---	NATIONAL	
		REGION	
43.7	-17.9*		Southeast
66.0	4.3		West
68.7	7.1*		Central
65.3	3.6		Northeast
		SEX	
61.7	0.0		Male
61.6	-0.0		Female
		COLOR	
23.7	-37.9*		Black
67.6	5.9*		White
		PARENTAL EDUCATION	
39.8	-21.8*		No High School
37.3	-24.3*		Some High School
62.4	0.7		Graduated High Sch.
76.8	15.2*		Post High School
62.9	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
34.8	-28.2*		Extreme Inner City
55.3	-7.6		Extreme Rural
59.4	-3.5		Small City
64.2	1.3		Medium City
68.2	5.3		Rest Of Big City
68.7	5.8		Suburban Fringe
80.4	17.5*		Extreme Aff Suburb



Exercise 314 -- Age 17

Overlap: Age 13 and adult

Objective III: Use what is read.
Subobjective B: Follow written directions.

Sixty-one percent of all 17-year-olds correctly followed the entire set of directions and drew the correct figure. About 93% of the 17-year-olds correctly drew a horizontal line near the bottom of the page, and 91% of those who had completed the first part were able to draw two circles that: (a) were approximately one inch in size, (b) were above the line, (c) touched each other, and (d) touched the line. About 88% of all 17-year-olds were able to draw another circle of the same size above and touching the first two circles (even though the first two circles in this case might not have been correctly placed). Seventy-two percent of all 17-year-olds were then able to connect the centers of the three circles with straight lines (even though, in this case, none of the three circles was necessarily correctly placed). About 68% succeeded in drawing a vertical line from the top of the triangle (though again, the triangle itself was not necessarily correct) to the original horizontal line.

Exercise 31501

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (For example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

A. How is the first dealer chosen? Each player draws card from deck, player with highest card becomes dealer

S10 16 3/1 01*X315013 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
91.8	---	NATIONAL	
		REGION	
86.7	-5.0*		Southeast
91.7	-0.1		West
94.5	2.7*		Central
92.7	0.9		Northeast
		SEX	
89.2	-2.6*		Male
94.3	2.5*		Female
		COLOR	
77.5	-14.3*		Black
93.9	2.1*		White
		PARENTAL EDUCATION	
79.7	-12.0*		No High School
91.3	-0.5		Some High School
92.8	1.1		Graduated High Sch.
95.9	4.1*		Post High School
92.7	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
88.0	-4.6		Extreme Inner City
92.5	-0.2		Extreme Rural
90.3	-2.3*		Small City
93.3	0.6		Medium City
93.7	1.0		Rest Of Big City
95.4	2.7*		Suburban Fringe
96.8	4.1*		Extreme Aff Suburb

PERCENTAGE OF SUCCESS

0 10 20 30 40 50 60 70 80 90 100

Exercise 31501 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

Exercise 31501 is the first of eight questions about the directions to the card game Win-Em-All. The correct answer to this question requires reading only the first two sentences of the instructions. Correct responses identify the first dealer as the player who draws the highest card. Another correct response is that the winner of the last game is the dealer of the next (see the last line of the directions), but this response was given by very few 17-year-olds. Altogether, almost 92% of the 17-year-olds correctly responded to the question.

Exercise 31502

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

B. Is this a game for adults as well as for children? Yes

S10 16 5/1 01*X315023 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS (0 10 20 30 40 50 60 70 80 90 100)
93.3	---	NATIONAL		**********
		REGION		
87.5	-5.8*		Southeast	**********
94.3	0.9		West	**********
96.2	2.9*		Central	**********
93.9	0.5		Northeast	**********
		SEX		
89.8	-3.5*		Male	**********
96.7	3.4*		Female	**********
		COLOR		
81.4	-11.9*		Black	**********
95.0	1.6*		White	**********
		PARENTAL EDUCATION		
86.5	-6.8*		No High School	**********
90.5	-2.8		Some High School	**********
95.6	2.3*		Graduated High Sch.	**********
95.6	2.2*		Post High School	**********
94.1	---	NATIONAL(17IS ONLY)		**********
		SIZE-AND-TYPE OF COMMUNITY		
88.2	-5.9*		Extreme Inner City	**********
94.7	0.6		Extreme Rural	**********
93.4	-0.7		Small City	**********
95.7	1.6		Medium City	**********
94.1	0.0		Rest Of Big City	**********
95.4	1.3		Suburban Fringe	**********
96.4	2.3		Extreme Aff Suburb	**********

Exercise 31502 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

This second question about Win-Em-All requires only that the student read the subtitle, "A card game for the whole family--any number can play." "Yes" or any affirmative answer is acceptable. About 93% of the youths correctly answered this question.

Exercise 31503

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

C. What do you do if you have no more cards in your stack? ____

Drop out of game

S10 16 7/1 01*I315033 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
84.3	---	NATIONAL		**********
		REGION		
75.7	-8.6*		Southeast	**********
85.4	1.1		West	**********
89.4	5.1*		Central	**********
84.3	-0.0		Northeast	**********
		SEX		
79.8	-4.5*		Male	**********
88.6	4.4*		Female	**********
		COLOR		
64.3	-19.9*		Black	**********
87.2	3.0*		White	**********
		PARENTAL EDUCATION		
72.2	-12.1*		No High School	**********
80.3	-4.0		Some High School	**********
84.8	0.6		Graduated High Sch.	**********
90.6	6.3*		Post High School	**********
84.9	---	NATIONAL(17IS ONLY)		**********
		SIZE-AND-TYPE OF COMMUNITY		
74.6	-10.3*		Extreme Inner City	**********
84.7	-0.3		Extreme Rural	**********
83.7	-1.2		Small City	**********
85.4	0.4		Medium City	**********
81.8	-3.1		Rest Of Big City	**********
90.3	5.4*		Suburban Fringe	**********
91.6	6.7*		Extreme Aff Suburb	**********

Exercise 31503 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

The correct answer to the third question about Win-Em-All is found in the third paragraph of the directions. About 84% of the 17-year-olds recognized that a player drops out of the game when he has no more cards.

Exercise 31504

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

D. Who plays first? *player to the left of dealer*

S10 16 9/1 01*X315043 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
67.8	---	NATIONAL		**********
		REGION		
58.7	-13.1*		Southeast	********
66.8	-0.9		West	**********
75.3	7.5*		Central	************
70.3	2.6		Northeast	**********
		SEX		
61.3	-6.5*		Male	********
74.1	6.3*		Female	**********
		COLOR		
36.3	-31.4*		Black	*****
72.4	4.6*		White	**********
		PARENTAL EDUCATION		
39.7	-28.1*		No High School	*****
59.5	-8.3*		Some High School	********
71.1	3.3*		Graduated High Sch.	**********
76.9	9.2*		Post High School	**********
68.3	---	NATIONAL(17IS ONLY)		**********
		SIZE-AND-TYPE OF COMMUNITY		
53.2	-15.1*		Extreme Inner City	********
63.6	-4.7		Extreme Rural	**********
66.5	-1.8		Small City	**********
71.0	2.7		Medium City	**********
65.4	-2.9		Rest Of Big City	**********
73.5	5.2		Suburban Fringe	**********
80.6	12.3*		Extreme Aff Suburb	**********

Exercise 31504 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

The fourth question about Win-Em-All is the last one asked of the same group of 17-year-olds. The answer, that the player to the left of the dealer plays first, requires them to refer back to the second sentence of the instructions. The percentage of 17-year-olds who correctly answered this question--about 68%--is noticeably lower than the percentages for the previous three parts.

Exercise 31601

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

A. Who deals first? person with highest card after each player has drawn one card from deck.

S03 17 3/1 01*X316013 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
93.3	---	NATIONAL	**********
		REGION	
91.7	-1.6	Southeast	**********
93.7	0.4	West	**********
95.0	1.7*	Central	**********
92.4	-0.9	Northeast	**********
		SEX	
91.7	-1.6*	Male	**********
94.9	1.6*	Female	**********
		COLOR	
81.2	-12.1*	Black	**********
95.2	1.9*	White	**********
		PARENTAL EDUCATION	
85.6	-7.7*	No High School	**********
93.4	0.1	Some High School	**********
93.7	0.4	Graduated High Sch.	**********
96.0	2.7*	Post High School	**********
93.5	---	NATIONAL(17IS ONLY)	**********
		SIZE-AND-TYPE OF COMMUNITY	
85.4	-8.1	Extreme Inner City	**********
92.4	-1.1	Extreme Rural	**********
92.4	-1.1	Small City	**********
95.1	1.6	Medium City	**********
96.3	2.8*	Rest Of Big City	**********
95.3	1.7	Suburban Fringe	**********
95.1	1.5	Extreme Aff Suburb	**********

Exercise 31601 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

The next four questions about Win-Em-All were asked of an entirely different set of 17-year-olds. The first question (Who deals first?) closely resembles the first question in the previous series of questions (How is the first dealer chosen?),and about the same percentage (93%) correctly responded.

Exercise 31602

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

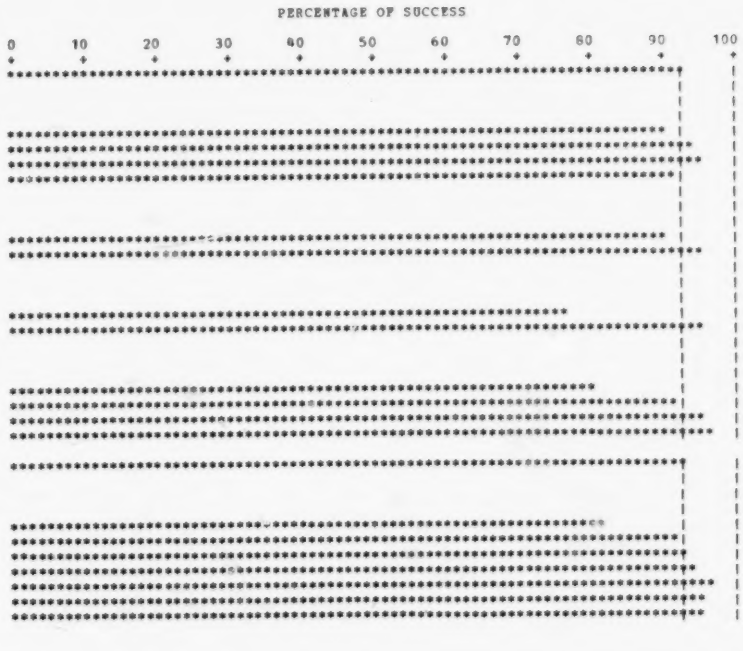
B. How many people may play the game?

Any Number

S03 17 5/1 01*X316023 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
92.6	---	NATIONAL	
		REGION	
90.3	-2.2		Southeast
94.0	1.5		West
94.4	1.9		Central
90.9	-1.6		Northeast
		SEX	
89.8	-2.8*		Male
95.4	2.8*		Female
		COLOR	
75.7	-16.9*		Black
94.8	2.3*		White
		PARENTAL EDUCATION	
79.4	-13.1*		No High School
90.9	-1.6		Some High School
95.2	2.6*		Graduated High Sch.
95.9	3.3*		Post High School
93.0	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
81.6	-11.4*		Extreme Inner City
91.2	-1.8		Extreme Rural
92.6	-0.4		Small City
93.7	0.7		Medium City
96.7	3.7*		Rest Of Big City
95.6	2.6*		Suburban Fringe
94.9	1.9		Extreme Aff Suburb



Exercise 31602 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

The simplest--and most common--answers to this question about Win-Em-All are phrases from the subtitle of the instructions "any number" and "the whole family." Other correct answers include "a whole bunch" and even "52," since the number of players is really limited by the number of cards. About 93% of the youths offered a correct answer.

Exercise 31603

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

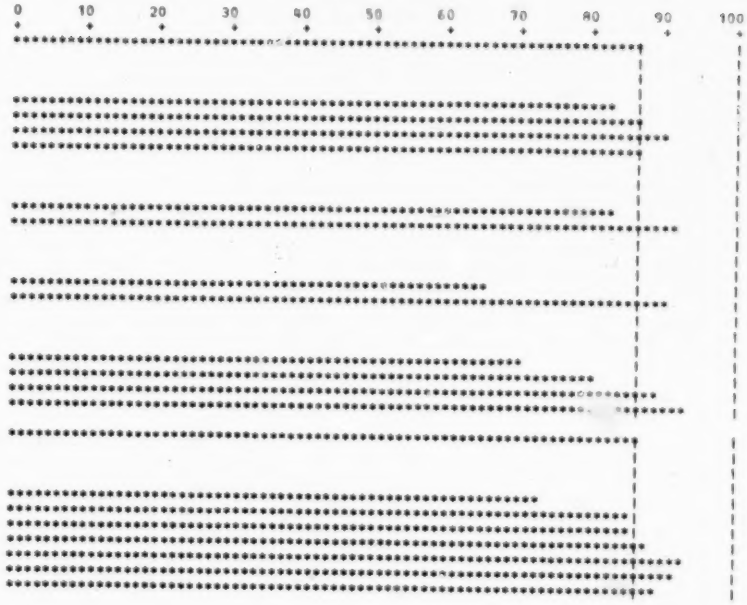
C. What happens to a trick if there is a tie for high card?

Person to Right, Wears of Left
Card wins Hint Ace

S03 17 7/1 01*Y316033 R0030090 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
86.3	---	NATIONAL	
		REGION	
82.5	-3.8		Southeast
86.1	-0.2		West
89.6	3.3*		Central
86.0	-0.3		Northeast
		SEX	
81.9	-4.4*		Male
90.8	4.5*		Female
		COLOR	
64.9	-21.4*		Black
89.4	3.1*		White
		PARENTAL EDUCATION	
70.4	-15.9*		No High School
80.3	-6.0*		Some High School
88.5	2.2*		Graduated High Sch.
92.0	5.7*		Post High School
86.8	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
72.8	-14.0*		Extreme Inner City
84.7	-2.1		Extreme Rural
85.0	-1.8		Small City
87.7	0.8		Medium City
92.3	5.5*		Rest Of Big City
91.4	4.6*		Suburban Fringe
89.1	2.3		Extreme Aff Suburb



Exercise 31603 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

The most correct response to this question about Win-Em-All is that the winner of the next round wins the trick if there is a tie for the high card, but few 17-year-olds included the results of the next trick in their answer. "No one wins" or "the trick stays in the center of the table" were more common--and also correct--responses. Altogether, about 86% correctly responded to this item.

Exercise 31604

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

D. How is the winner of the game determined?

the player collecting all of the cards

S03 17 9/1 01*I316043 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
72.2	---	NATIONAL	
		REGION	
67.9	-4.3	Southeast	
70.4	-1.8	West	
76.4	4.3*	Central	
72.8	0.6	Northeast	
		SEX	
69.5	-2.7*	Male	
74.9	2.8*	Female	
		COLOR	
40.0	-32.2*	Black	
76.5	4.3*	White	
		PARENTAL EDUCATION	
52.5	-19.7*	No High School	
62.1	-10.1*	Some High School	
73.9	1.7	Graduated High Sch.	
81.2	9.1*	Post High School	
72.8	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
52.8	-19.6*	Extreme Inner City	
64.8	-7.6*	Extreme Rural	
71.6	-0.9	Small City	
77.3	4.8*	Medium City	
75.2	2.8	Rest Of Big City	
75.7	3.2	Suburban Fringe	
78.7	6.3	Extreme Aff Suburb	

Exercise 31604 -- Age 17

Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

Correct responses to the last question about Win-Em-All consist of mentioning either that the one who has all the cards wins the game or, inversely, that when everyone else is out of cards, the remaining player wins. Both the last paragraph and, by implication, the name of the game suggest the correct answer. Only about 72% of the youths understood how the winner of the game is determined.

CHAPTER 6

RESULTS FOR YOUNG ADULTS

The young adults (ages 26-35) participating in the 1970-71 Reading assessment were born between April 1, 1935, and March 31, 1945.

First, we describe each group's overall performance on the Theme 3 exercises; then we indicate those exercises on which specific group behaviors differ atypically from the group's median level; finally, we present each individual exercise with its results.

Four specific effects (behaviors) on written directions are summarized at the young adult level, but only two specific behaviors are described in detail. Exhibit 6-1 shows the distribution of the four behaviors for each group relative to the national level indicated by the Ø line. A group's median level is indicated by an arrow (→). A typical behavior for the group is shown by a box with an X (☒), and an atypical behavior is indicated by an open box (☐).

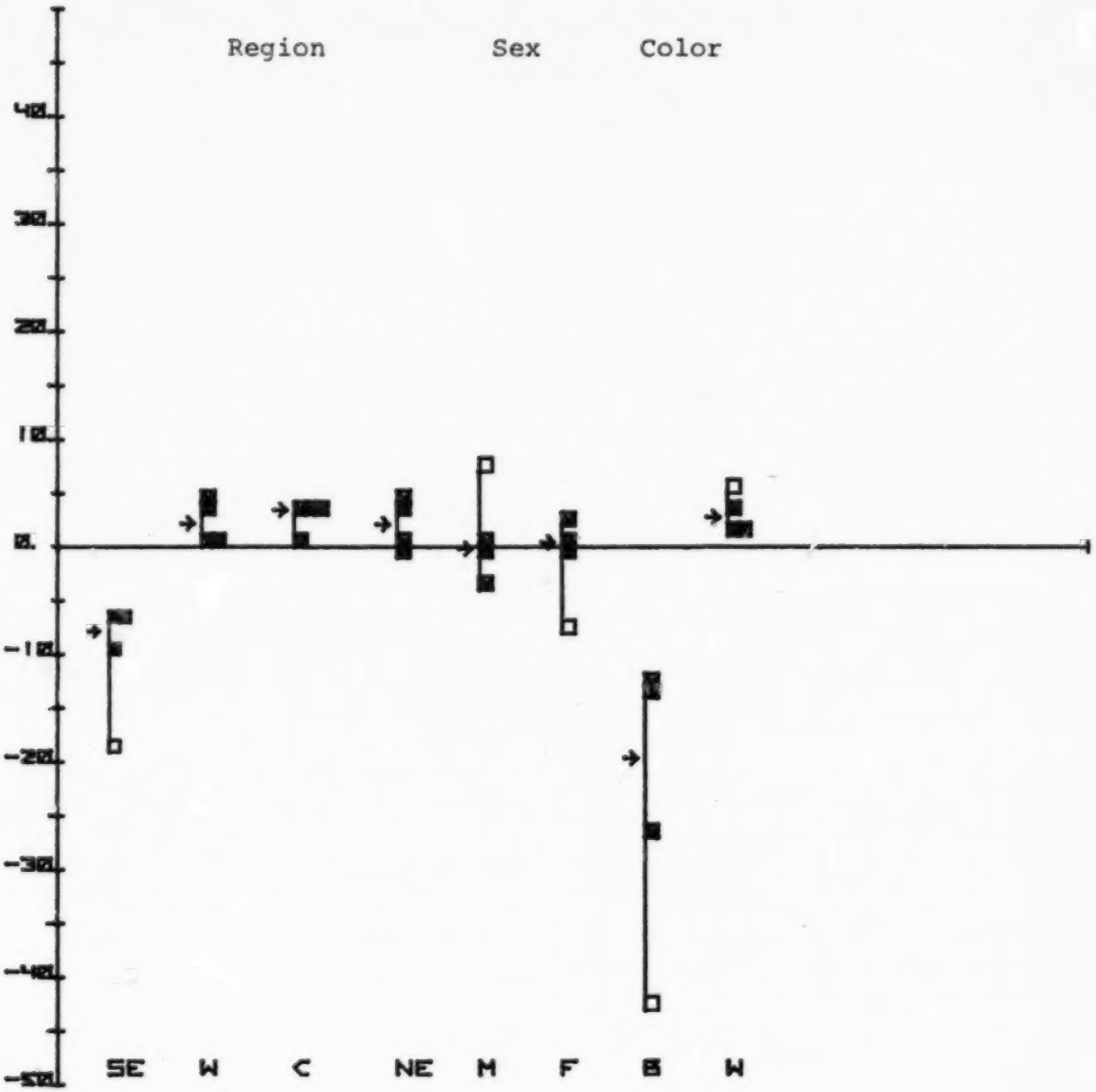
When a group's overall behavior has been described as tending to be above or tending to be below, or as characteristically above or characteristically below the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level, or (2) atypically closer to[1] the national level. When a group's overall behavior has been described as being about the same as the national level, a specific behavior can be atypically high or low relative to the group's median level.

---

[1]An atypical effect (or behavior) described as closer to the national level may be: (1) less extreme in the same direction as a group's tendency or characteristic or (2) it may occur in the opposite direction from the group's median level.

Exhibit 6-1A

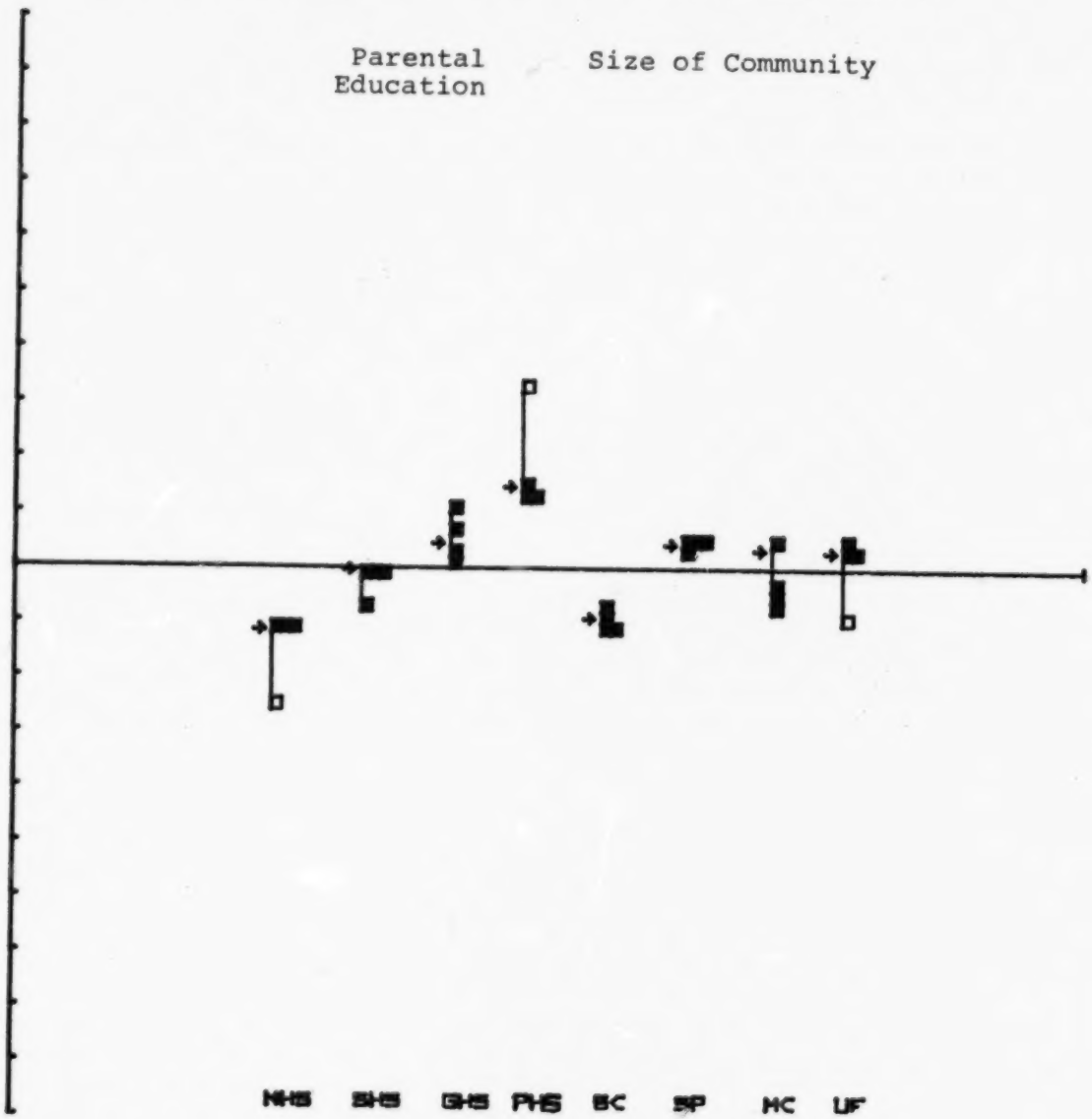
Distributions of Effects for Young Adults



	SE	W	C	NE	M	F	B	W
Median Effect	-7.9	2.1	3.3	2.0	-0.3	0.3	-19.7	2.6

Exhibit 6-1B

Distributions of Effects for Young Adults



	NHS	SHS	GHS	PHS	BC	SP	HC	UF
Median Effect	-5.8	-0.2	2.2	7.3	-4.6	2.2	-1.7	1.5

Region

Adults in the Southeast, with a median effect of -7.9, characteristically performed below the national level. The group recorded a percentage atypically farther from the national level on Exercise R314, which involves drawing a complex geometric form from a set of instructions.

Both the West and the Central regions, with the median effects of 2.1 and 3.3, respectively, tended to perform slightly above the national levels of success.

The Northeast, with a median effect of 2.0, consistently performed at about the national level.

Sex

Adult men and women performed at about the same level on most of the exercises in Theme 3. The one exception, Exercise R314, showed men achieving atypically high and women atypically low percentages.

Color

On the other hand, differences by color were large. Blacks, with a median effect of -19.7, characteristically performed below the national level, while Whites, with a median effect of 2.6, characteristically performed above the national level. The effects for both groups were atypically farther from the national level on Exercise R314.

Parental Education[2]

The no-high-school group, with a median effect of -5.8, was characteristically below the national level of success, while the post-high-school group, with a median effect of 7.3, was characteristically above. Effects for both groups were atypically farther from the national level on Exercise R314.

The some-high-school group and the graduated-from-high school group both demonstrated directional tendencies, but not directional characteristics. The some-high-school group, with a median of -0.2, tended to perform below the national level, while the graduated-from-high-school group, with a median effect of 2.2, performed above the national level.

---

[2]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education groups.

Size of Community[3]

Adults in the big-city group achieved a median effect of -4.6 and tended to perform below the national level of success. On the other hand, adults living in small places, who achieved a median effect of 2.2, tended to perform above the national level.

Neither the medium-city group nor the urban-fringe group demonstrated any directional tendencies, but the urban-fringe group posted an unusually low percentage of success on Exercise U311, an unreleased exercise that involves understanding a complex set of instructions for performing a magic trick.

* * * * * * * * *

The data for the one released exercise representing understanding words and word relationships is presented as follows. The upper part of the page shows the exercise number, age level, and the objective and major subobjective of the exercise. Then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of young adults choosing each answer is also shown. The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures) and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. In addition to the percentages, the effects can also be seen graphically. Note the dashed vertical line descending from the end of the national percentage bar. This allows a visual comparison of each group percentage of success with the national level.

---

[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size of community groups.

Exercise 307

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

— Omitted due to —
— copyright restrictions —

—

Nat'l % Choosing Each Answer | How long does it take to bake English muffins on top of range?

2.9%	○ 8-10 minutes
1.2%	○ Exactly 10 minutes
85.5%	● About 30 minutes
1.7%	○ 1 1/4 hours
5.6%	○ More than 3 hours
1.7%	○ I don't know.
1.4%	No response

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A02 06 3/1 03*Y307011 R1030000 9 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
85.5	---	NATIONAL	
		REGION	
78.2	-6.3*	Southeast	
85.9	0.3	West	
88.8	3.3	Central	
86.0	0.5	Northeast	
		SEX	
82.8	-3.1*	Male	
88.8	2.9*	Female	
		COLOR	
72.0	-13.5*	Black	
87.4	1.8*	White	
		PARENTAL EDUCATION	
80.2	-5.3*	No High School	
85.5	-0.0	Some High School	
89.8	3.3*	Graduated High Sch.	
92.2	6.7*	Post High School	
		SIZE OF COMMUNITY	
80.6	-5.1*	Big City	
87.8	2.3*	Small Place	
83.5	-2.0	Medium City	
87.4	1.8	Urban Fringe	

Exercise 307 -- Adult

Overlap: Ages 9, 13, 17

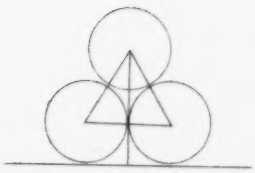
Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

A recipe is a set of directions adults typically find in their everyday lives. About 86% of all the adults correctly indicated that English muffins take about 30 minutes to bake on top of a range.

Exercise 314

Read the following paragraph and do what it tells you to do.

Draw a horizontal line near the bottom of the page. Draw two circles approximately one-inch in size above the line which just touch each other and the line. Draw another circle of the same size above the first two which just touches both. Now connect the centers of the three circles with straight lines. Draw a vertical line from the top of the triangle in the picture to the line you drew first



A03 769 1/2 15*X3X4060 R00300D0 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP
60.7	---	NATIONAL
		REGION
42.1	-18.6*	Southeast
64.6	3.9	West
64.3	3.6	Central
65.9	5.2	Northeast
		SEX
68.1	7.4*	Male
53.6	-7.1*	Female
		COLOR
17.9	-42.8*	Black
66.3	5.6*	White
		PARENTAL EDUCATION
48.3	-12.4*	No High School
57.1	-3.5	Some High School
66.0	5.4	Graduated High Sch.
77.1	16.4*	Post High School
		SIZE OF COMMUNITY
56.7	-4.0	Big City
62.2	1.5	Small Place
59.4	-1.3	Medium City
61.9	1.2	Urban Fringe

PERCENTAGE OF SUCCESS

0 10 20 30 40 50 60 70 80 90 100

Exercise 314 -- Adult

Overlap: Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

Only about three-fifths of the adults correctly completed the figure described in the directions. Ninety-one percent correctly drew a horizontal line near the bottom of the page, and 93% of those who had completed the first part were able to draw two circles that: (a) were approximately one inch in size, (b) were above the line, (c) touched each other, and (d) touched the line. Eighty-nine percent of the adults were able to draw another circle of the same size above and touching the first two circles (even though the first two circles in this case might not have been correctly placed). Seventy-one percent were then able to connect the centers of the three circles with straight lines (even though, in this case, none of the three circles was necessarily correctly spaced). Sixty-six percent succeeded in drawing a vertical line from the top of the triangle (though again, the triangle itself was not necessarily correct) to the original horizontal line.

CHAPTER 7

AGE COMPARISONS

In Chapters 3-6, our concern has been with comparing the percentage of success for each group with the national percentage of success within each age level. When an exercise has been administered at more than one age level, we can compare the percentage of success for a given group at one age level with that group's percentage(s) of success at the other age level(s) and determine the percentage increase or percentage decrease between one age level and the next higher age level. We can also determine the overall or net percentage increase or percentage decrease between the lowest age level and the highest age level when more than two age levels are involved.

We compare the percentages of success for 9-, 13-, and 17-year-olds and young adults (26-35) all obtained at the time of the 1970-71 assessment. Therefore, we are not justified in assuming that four years later the 9-year-olds (for example), when they are 13-year-olds, would necessarily attain the same percentages of success as the 13-year-olds in the 1970-71 assessment. Likewise, we are not justified in assuming that four years earlier the 13-year-olds, when they were 9-year-olds, would have necessarily attained the same percentages of success as the 9-year-olds in the 1970-71 assessment. This is because the experiences between age 9 and age 13 could be quite different for the 9-year-olds and 13-year-olds in the 1970-71 assessment. These statements generalize to the comparisons we make between any two age levels.

For each exercise, an exhibit shows the percentage of success for each group at the relevant age levels and the percentage difference between each pair of adjacent age levels and (when applicable) the percentage difference between the lowest age level and the highest age level. For example, if we look at the Northeast at ages 13, 17, and adult:

	Age Level	Percentage of Success		Percentage Difference
Northeast	13	17.9		
	17	25.2	13→17	7.4
	Ad.	43.3	17→Ad.	18.1
			13→Ad.	25.5

We see that the percentage of success for the 13-year-olds is 17.9 and for the 17-year-olds is 25.2 with a percentage difference going from age 13 to age 17 of 7.4. We likewise see that the percentage of success for the adults is 43.3 with a percentage difference going from age 17 to adult of 18.1. The overall percentage difference going from age 13 to adult is 25.5. A percentage decrease is indicated by a minus sign (-). The bars on the graph portion of the exhibit also indicate the percentages of success for the groups at each age level. A dashed vertical line descends from the end of each national percentage bar. This allows a visual comparison of a group's position relative to the national level from age level to age level.

Some special note should be made of the white space between the end of each bar and the 100% vertical line. This white space represents the percentages of individuals who <u>did not</u> succeed on an exercise at each age level. This white space or <u>percentage of failure</u> must be taken into account when we consider the percentage increase from one age level to the next. Consider the following examples.

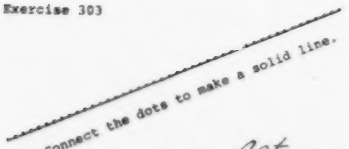
1. If the percentage of success for a group at age 9 is 20 and the percentage of success for that group at age 13 is 50, the percentage increase is 30. On the face of it, this seems to be a reasonably large increase, but 50% of the 13-year-olds still failed.

2. If the percentage of success for a group at age 9 is 95 and the percentage of success for that group at age 13 is 99.5, the percentage increase is 4.5. On the face of it, this seems to be a small increase. However, only 5% of the 9-year-olds failed, therefore, there could not be a large increase going to age 13.

Another consideration must be made when we look at the percentage increase from one age level to the next. The exercise may be extremely difficult for <u>both</u> age levels under consideration in which case we would expect a small or no percentage increase.

Of the released exercises representing written directions, one was administered at all four age levels; another was administered to 13-year-olds, 17-year-olds, and adults; ten were administered only to 13- and 17-year-olds; one other was administered only to 9- and 13-year-olds. With very few exceptions, a given age level attained a higher percentage of success than the next lower age level.

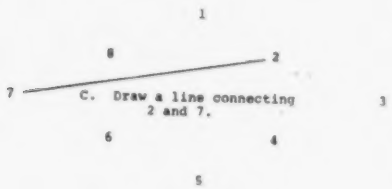
Exercise 303

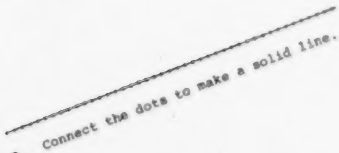


A. Connect the dots to make a solid line.

cat

B. Write the word "cat" on this line.





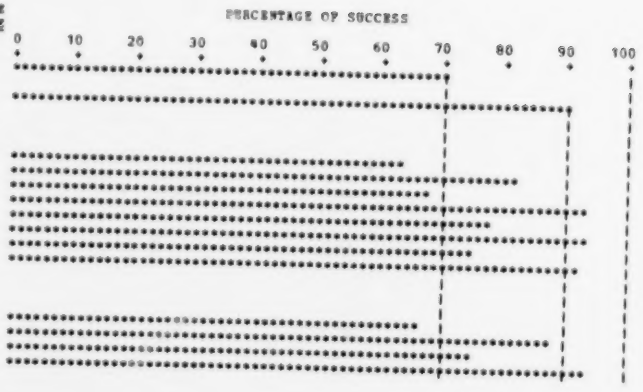
D. Connect the dots to make a solid line.

N01 17B 1/2 14*X303050 R0030000
T08 13B 1/2 14*X303050 R0030000

9 13
9 13

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	9	70.4		
	NATIONAL	13	90.1	9-->13	19.7
REGION					
	Southeast	9	62.4		
		13	81.9	9-->13	19.5
	West	9	66.5		
		13	93.1	9-->13	26.6
	Central	9	76.7		
		13	93.3	9-->13	16.6
	Northeast	9	73.9		
		13	91.8	9-->13	17.9
SEX					
	Male	9	66.4		
		13	87.6	9-->13	21.2
	Female	9	74.5		
		13	92.9	9-->13	18.4



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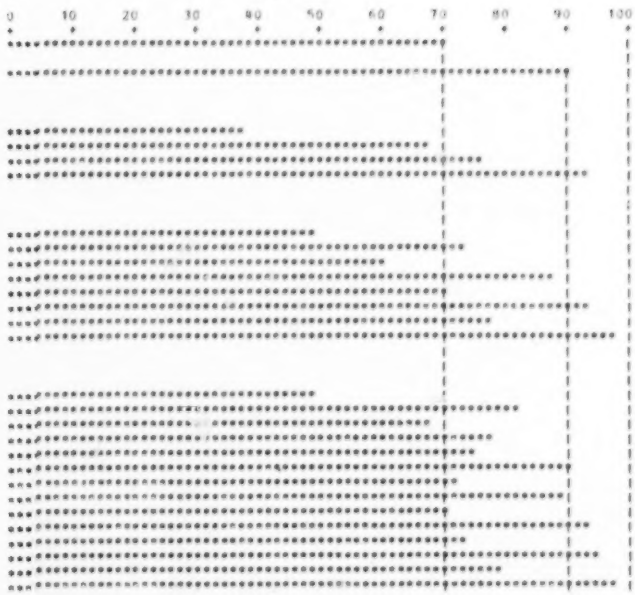
NOT 178 1/2  14=X303050 R0030000                    9 13
TOT 138 1/2  14=X303050 R0030000                    9 13
```

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	9	70.4		
NATIONAL	13	90.1	9-->13	19.7
COLOR				
Black	9	37.2		
	13	67.8	9-->13	30.6
White	9	76.3		
	13	93.3	9-->13	17.0
PARENTAL EDUCATION				
No High School	9	49.2		
	13	72.8	9-->13	23.7
Some High School	9	60.6		
	13	87.8	9-->13	27.2
Graduated High Sch.	9	70.0		
	13	92.3	9-->13	22.3
Post High School	9	76.9		
	13	96.5	9-->13	19.5
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	9	48.4		
	13	81.4	9-->13	33.0
Extreme Rural	9	67.4		
	13	77.3	9-->13	9.9
Small City	9	73.9		
	13	90.6	9-->13	16.7
Medium City	9	70.8		
	13	88.9	9-->13	18.1
Rest Of Big City	9	69.4		
	13	93.4	9-->13	24.0
Suburban Fringe	9	72.9		
	13	94.1	9-->13	21.2
Extreme Aff Suburb	9	78.5		
	13	96.7	9-->13	18.2



Exercise 303 -- Ages 9 and 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

Exercise 303 requires children to follow four simple directions. About 70% of the 9-year-olds and 90% of the 13-year-olds correctly responded to all four instructions. For every three 9-year-olds who couldn't complete this exercise, only one 13-year-old was unable to do so.

Exercise 307

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

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Nat'l % Choosing Each Answer — How long does it take to bake English muffins on top of range?

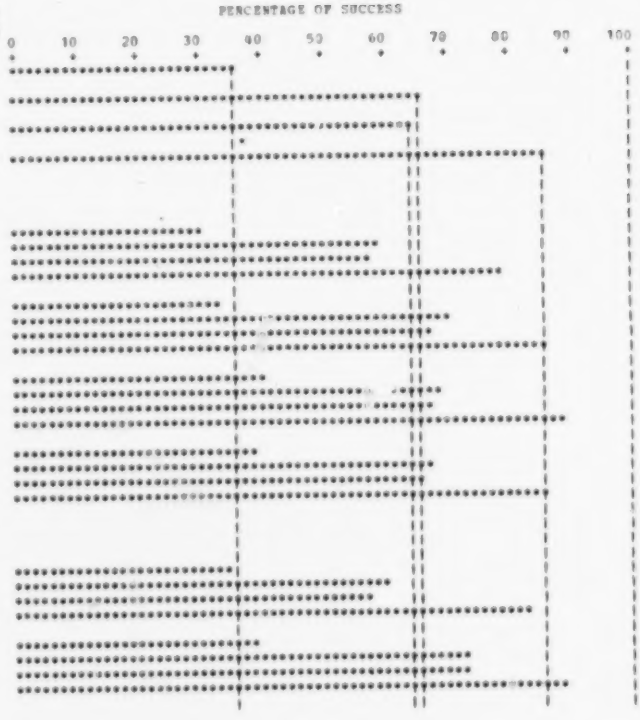
Age 9	Age 13	Age 17	Adult	
18.4%	7.5%	5.8%	2.9%	8-10 minutes
4.8%	1.6%	2.0%	1.2%	Exactly 10 minutes
36.2%	66.2%	64.6%	85.5%	About 30 minutes
19.6%	13.1%	7.6%	1.7%	1 1/4 hours
7.6%	7.5%	12.7%	5.6%	More than 3 hours
11.4%	3.0%	5.5%	1.7%	I don't know.
2.1%	1.1%	1.8%	1.4%	No response

```
307 90  3/1  01*X307011 R10000D0
302 02  3/1  03*X307011 R10000D0
308 03  3/1  05*X307011 R10000D0
A02 06  3/1  01*X307011 R1000000
```

```
9 13 17 A
9 13 17 A
9 13 17 A
9 13 17 A
```

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	9	36.2		
	NATIONAL	13	66.2	9-->13	30.0
	NATIONAL	17	64.6	13-->17	-1.6
	NATIONAL	Ad	85.5	17-->Ad	20.9
				9-->Ad	49.3
REGION	Southeast	9	30.7		
		13	58.7	9-->13	28.1
		17	57.8	13-->17	-1.0
		Ad	79.2	17-->Ad	21.4
				9-->Ad	48.5
	West	9	33.0		
		13	70.4	9-->13	37.4
		17	66.8	13-->17	-3.6
		Ad	85.8	17-->Ad	19.1
				9-->Ad	52.8
	Central	9	40.4		
		13	68.5	9-->13	28.1
		17	67.3	13-->17	-1.2
		Ad	88.8	17-->Ad	21.5
				9-->Ad	48.4
	Northeast	9	38.9		
		13	66.9	9-->13	28.0
		17	65.5	13-->17	-1.4
		Ad	86.0	17-->Ad	20.4
				9-->Ad	47.0
SEX	Male	9	33.7		
		13	60.1	9-->13	26.4
		17	56.8	13-->17	-3.3
		Ad	82.4	17-->Ad	25.7
				9-->Ad	48.7
	Female	9	38.7		
		13	72.8	9-->13	34.0
		17	72.5	13-->17	-0.3
		Ad	88.4	17-->Ad	16.0
				9-->Ad	49.7



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N07 10  3/1  03*X307011 R1000000                    9 13 17 A
T02 02  3/1  03*X307011 R1000000                    9 13 17 A
S08 03  3/1  03*X307011 R1000000                    9 13 17 A
A02 06  3/1  03*X307011 R1000000                    9 13 17 A
```

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
				PERCENTAGE OF SUCCESS
				0 10 20 30 40 50 60 70 80 90 100
NATIONAL	9	36.2		
NATIONAL	13	66.2	9-->13	30.0
NATIONAL	17	64.6	13-->17	-1.6
NATIONAL	Ad	85.5	17-->Ad	20.9
			9-->Ad	49.3
COLOR				
Black	9	31.4		
	13	54.7	9-->13	23.4
	17	52.9	13-->17	-1.9
	Ad	72.0	17-->Ad	19.2
			9-->Ad	40.7
White	9	37.2		
	13	68.6	9-->13	31.5
	17	66.6	13-->17	-2.0
	Ad	87.4	17-->Ad	20.7
			9-->Ad	50.2
PARENTAL EDUCATION				
No High School	9	18.		
	13	45.5	9-->13	7.5
	17	59.5	13-->17	14.0
	Ad	80.2	17-->Ad	20.7
			9-->Ad	42.2
Some High School	9	30.4		
	13	59.3	9-->13	28.9
	17	53.8	13-->17	-5.5
	Ad	85.5	17-->Ad	31.7
			9-->Ad	55.0
Graduated High Sch.	9	33.5		
	13	66.6	9-->13	33.1
	17	62.0	13-->17	-4.6
	Ad	88.8	17-->Ad	26.7
			9-->Ad	55.3
Post High School	9	43.8		
	13	74.6	9-->13	30.
	17	71.7	13-->17	-2.9
	Ad	92.2	17-->Ad	20.5
			9-->Ad	48.4
NATIONAL	9	36.2		
NATIONAL	13	66.2	9-->13	30.0
NATIONAL	17IS	64.3	13-->17	-1.9
			9-->17	28.0
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	9	37.4		
	13	55.3	9-->13	17.9
	17IS	52.5	13-->17	-2.7
			9-->17	15.2
Extreme Rural	9	38.5		
	13	53.9	9-->13	19.4
	17IS	60.4	13-->17	6.5
			9-->17	25.9
Small City	9	30.8		
	13	67.0	9-->13	36.2
	17IS	65.0	13-->17	-2.0
			9-->17	34.2
Medium City	9	36.1		
	13	65.6	9-->13	29.4
	17IS	61.6	13-->17	-4.0
			9-->17	25.5
Rest Of Big City	9	45.5		
	13	62.6	9-->13	17.1
	17IS	65.5	13-->17	2.9
			9-->17	20.0
Suburban Fringe	9	40.2		
	13	71.8	9-->13	31.6
	17IS	68.2	13-->17	-3.6
			9-->17	27.9
Extreme Aff Suburb	9	38.8		
	13	70.8	9-->13	31.9
	17IS	70.4	13-->17	-0.3
			9-->17	31.6

Exercise 307 -- Ages 9, 13, 17, and Adult

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Success on this exercise requires selecting the correct direction from several others that are in or could be derived from the recipe. Only about 36% of the 13-year-olds successfully completed the exercise; results for 13- and 17-year-olds were close to each other--both about 30 percentage points above the 9-year-old level; adult performance was higher, about 50 percentage points above the 9-year-old level. For every six 9-year-olds who could not correctly answer the question, only one adult was unable to do so.

Exercise 308

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

Omitted due to copyright restriction.

Nat'l % Choosing Each Answer

How are these English muffins cooked?

Age 13	Age 17		
2.5%	0.9%	○	They are fried in butter.
24.7%	19.0%	○	They are baked in the oven.
66.1%	74.6%	●	They are baked on a griddle.
1.9%	1.6%	○	They are deep-fried in hot fat.
3.6%	2.5%	○	I don't know.
1.2%	1.3%		No response

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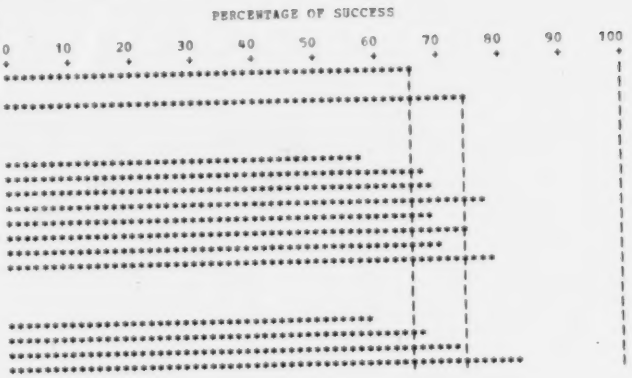
T03 39 3/1 03*X308011 R10000D0
S07 10 3/1 03*X308011 R10000D0

13 17
13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	66.1		
	NATIONAL	17	74.6	13-->17	8.6
REGION					
	Southwest	13	56.8		
		17	66.6	13-->17	9.8
	West	13	68.2		
		17	76.9	13-->17	8.7
	Central	13	68.7		
		17	74.5	13-->17	5.8
	Northeast	13	69.7		
		17	78.6	13-->17	8.9
SEX					
	Male	13	59.1		
		17	66.7	13-->17	7.7
	Female	13	73.4		
		17	82.6	13-->17	9.2



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T03 09  3/1  03*X308011 R10000D0                    13 17
S07 10  3/1  03*X308011 R10000D0                    13 17
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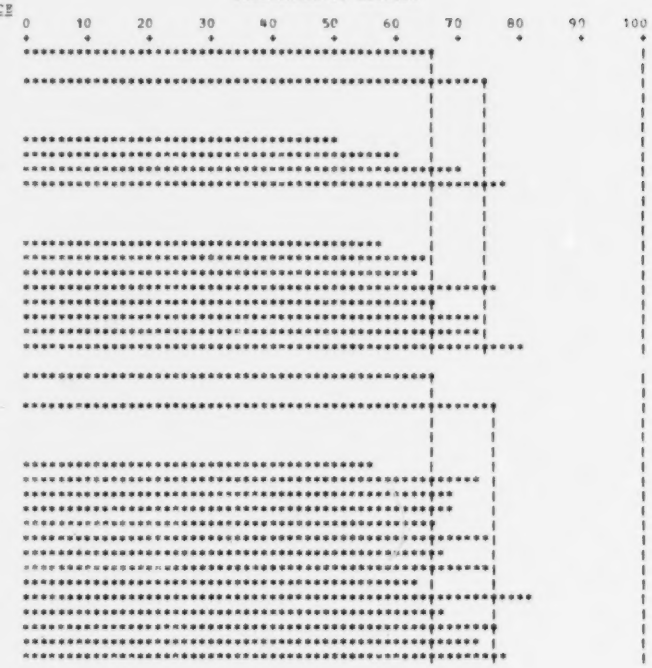
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	66.1		
NATIONAL	17	74.6	13-->17	8.6
COLOR				
Black	13	69.6		
	17	69.8	13-->17	10.8
White	13	69.7		
	17	76.6	13-->17	6.9
PARENTAL EDUCATION				
No High School	13	57.6		
	17	64.8	13-->17	7.2
Some High School	13	63.5		
	17	75.3	13-->17	11.9
Graduated High Sch.	13	66.1		
	17	72.8	13-->17	6.8
Post High School	13	73.3		
	17	79.6	13-->17	6.3
NATIONAL	13	66.1		
NATIONAL	17IS	75.2	13-->17	9.1
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	55.7		
	17IS	72.2	13-->17	16.5
Extreme Rural	13	68.0		
	17IS	68.8	13-->17	0.8
Small City	13	65.1		
	17IS	74.6	13-->17	9.4
Medium City	13	67.3		
	17IS	74.9	13-->17	7.6
Rest Of Big City	13	63.2		
	17IS	81.0	13-->17	17.8
Suburban Fringe	13	66.9		
	17IS	76.1	13-->17	9.3
Extreme Aff Suburb	13	72.5		
	17IS	77.5	13-->17	4.9



Exercise 308 -- Ages 13 and 17

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

Correctly answering this second question about the English muffin recipe requires finding the instruction to "bake on top of range" in the middle of the second paragraph. About 66% of the 13-year-olds and 75% of the 17-year-olds successfully completed the exercise; only about 9 percentage points separated the two levels of success.

Exercise 309

Here is a recipe for making muffins. Read the recipe and answer the question which follows it.

— OMITTED DUE TO COPYRIGHT RESTRICTIONS —

Nat'l % Choosing Each Answer

Age 13	Age 17		
21.9%	37.9%	●	Scalded milk, sugar, salt, shortening
8.2%	5.2%	○	Yeast, warm water, scalded milk, sugar
7.8%	2.8%	○	2 cups flour, scalded milk, sugar, salt
7.0%	3.0%	○	2 cups flour, warm water, scalded milk, sugar
46.9%	46.2%	○	None of the above.
7.4%	4.5%	○	I don't know.
1.0%	0.4%		No response

After softening the yeast in the water, what 4 ingredients are combined next?

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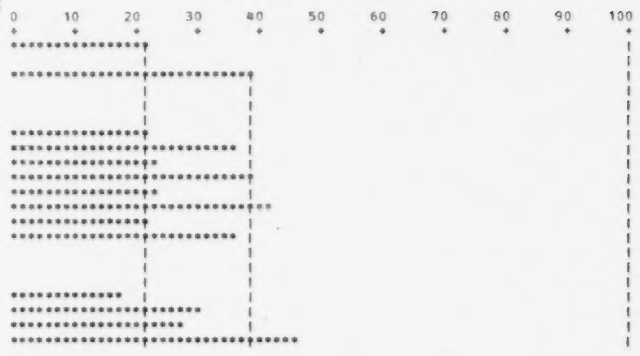
T04 04 3/1 01*X309012 R0200000 13 17
S09 07 3/1 01*X309012 R0200000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	21.9		
NATIONAL	17	37.9	13-->17	16.0
REGION				
Southeast	13	21.2		
	17	35.3	13-->17	14.0
West	13	22.4		
	17	39.1	13-->17	16.8
Central	13	22.2		
	17	41.1	13-->17	18.9
Northeast	13	21.7		
	17	35.0	13-->17	13.4
SEX				
Male	13	16.6		
	17	29.4	13-->17	12.8
Female	13	26.9		
	17	45.2	13-->17	18.3



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T04 04  3/1  01*X309012 R0200000
S04 07  3/1  01*X309012 R0200000
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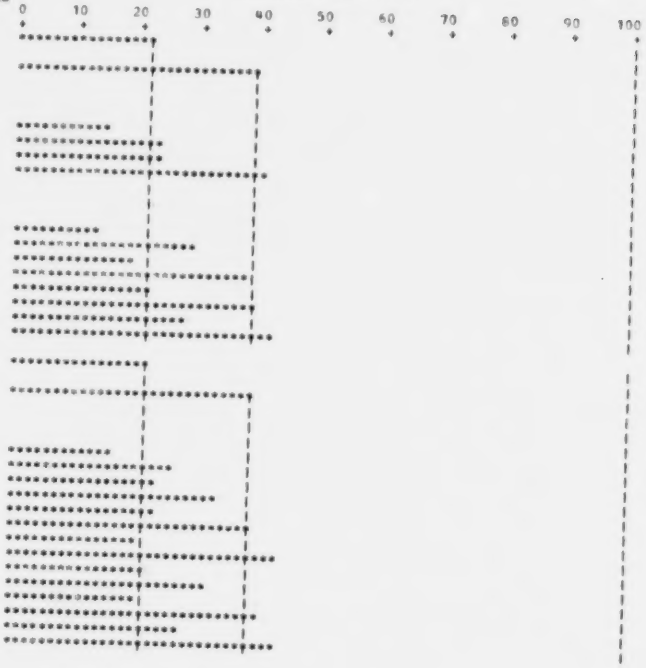
13 17
13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	21.9		
NATIONAL	17	37.9	13-->17	16.0
COLOR				
Black	13	14.3		
	17	22.6	13-->17	8.3
White	13	23.2		
	17	39.9	13-->17	16.8
PARENTAL EDUCATION				
No High School	13	12.8		
	17	27.9	13-->17	15.0
Some High School	13	18.3		
	17	37.3	13-->17	18.7
Graduated High Sch.	13	20.9		
	17	39.2	13-->17	18.4
Post High School	13	26.6		
	17	40.9	13-->17	14.3
NATIONAL	13	21.9		
NATIONAL	17IS	38.0	13-->17	16.1
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	16.4		
	17IS	25.6	13-->17	9.2
Extreme Rural	13	22.5		
	17IS	32.3	13-->17	9.8
Small City	13	22.7		
	17IS	38.7	13-->17	16.1
Medium City	13	20.6		
	17IS	42.8	13-->17	22.3
Rest Of Big City	13	21.0		
	17IS	31.7	13-->17	10.7
Suburban Fringe	13	20.6		
	17IS	40.5	13-->17	19.9
Extreme Aff Suburb	13	27.2		
	17IS	43.1	13-->17	15.9



Exercise 309 -- Ages 13 and 17

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

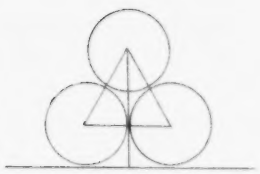
This third question about English muffins proved to be much more difficult than the previous two. The most common response at both age levels was "none of the above," possibly because the phrase "after softening the yeast in water" would signal the presence of only one ingredient to those unfamiliar with recipes. If so, the next four ingredients would be water, milk, sugar, and salt--a combination not included in the other choices.

Only about 22% of the 13-year-olds and about 38% of the 17-year-olds correctly identified the milk-sugar-salt-shortening series. At both ages, more than half were not able to successfully complete the exercise.

Exercise 314

Read the following paragraph and do what it tells you to do.

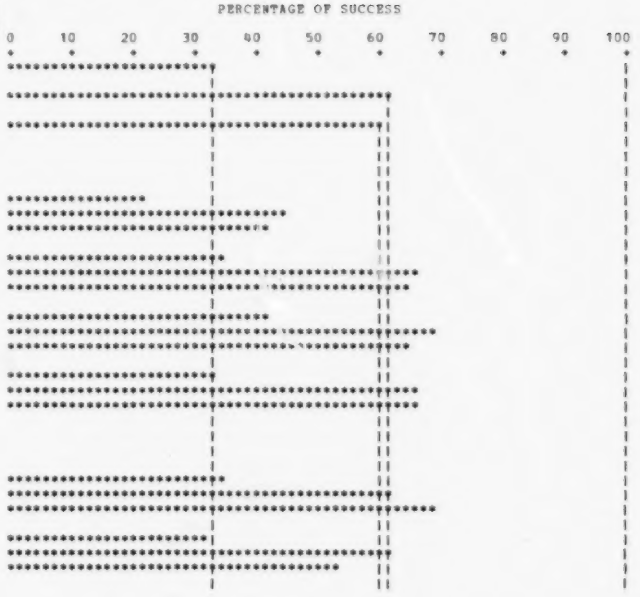
Draw a horizontal line near the bottom of the page. Draw two circles approximately one-inch in size above the line which just touch each other and the line. Draw another circle of the same size above the first two which just touches both. Now connect the centers of the three circles with straight lines. Draw a vertical line from the top of the triangle in the picture to the line you drew first.



T10 07B 1/2 15*X314060 R00300D0 13 17 A
S08 14B 1/2 15*X314060 R00300D0 13 17 A
A03 06B 1/2 15*X314060 R00300D0 13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	32.9		
	NATIONAL	17	61.6	13-->17	28.7
	NATIONAL	Ad	60.7	17-->Ad	-1.0
				13-->Ad	27.8
REGION					
	Southeast	13	21.0		
		17	43.7	13-->17	22.7
		Ad	42.1	17-->Ad	-1.6
				13-->Ad	21.0
	West	13	34.6		
		17	66.0	13-->17	31.3
		Ad	64.6	17-->Ad	-1.4
				13-->Ad	29.9
	Central	13	41.7		
		17	68.7	13-->17	27.0
		Ad	64.2	17-->Ad	-4.5
				13-->Ad	22.5
	Northeast	13	33.0		
		17	65.3	13-->17	32.3
		Ad	65.0	17-->Ad	-0.
				13-->Ad	32.0
SEX					
	Male	13	34.1		
		17	61.7	13-->17	27.6
		Ad	68.1	17-->Ad	6.4
				13-->Ad	34.0
	Female	13	31.8		
		17	61.6	13-->17	29.8
		Ad	53.6	17-->Ad	-8.0
				13-->Ad	21.8

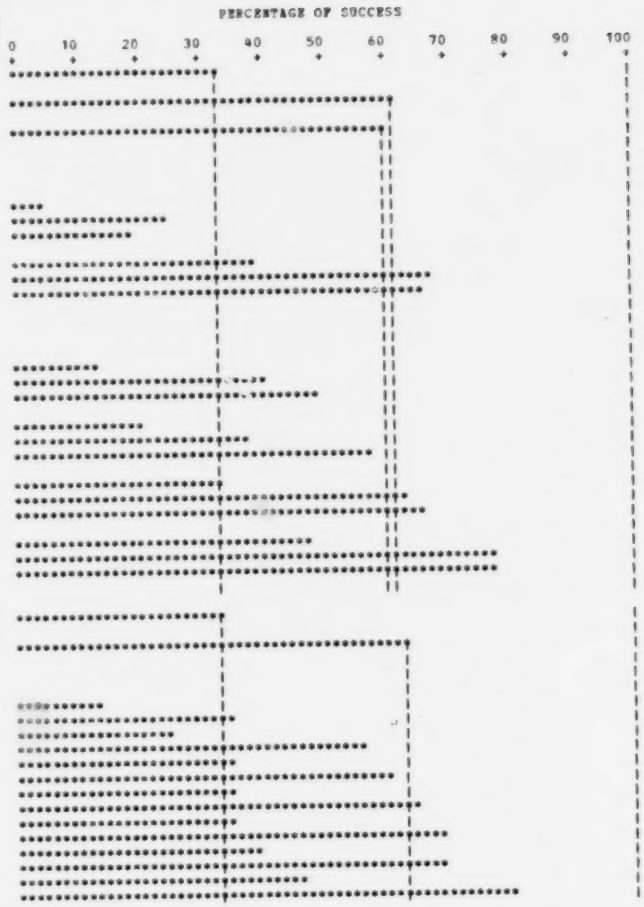


T10 078 1/2 15*Y314060 R00300D0
S08 148 1/2 15*X314060 R00300D0
A03 068 1/2 15*X314060 R00300D0

13 17 A
13 17 A
13 17 A

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	32.9		
NATIONAL	17	61.6	13-->17	28.7
NATIONAL	Ad	60.7	17-->Ad	-1.0
			13-->Ad	27.8
COLOR				
Black	13	4.8		
	17	23.7	13-->17	18.9
	Ad	17.9	17-->Ad	-5.8
			13-->Ad	13.1
White	13	39.0		
	17	67.6	13-->17	28.5
	Ad	66.3	17-->Ad	-1.3
			13-->Ad	27.3
PARENTAL EDUCATION				
No High School	13	12.4		
	17	39.8	13-->17	27.5
	Ad	48.3	17-->Ad	8.4
			13-->Ad	35.9
Some High School	13	20.3		
	17	37.3	13-->17	17.0
	Ad	57.1	17-->Ad	19.8
			13-->Ad	36.8
Graduated High Sch.	13	32.7		
	17	62.4	13-->17	29.7
	Ad	66.0	17-->Ad	3.7
			13-->Ad	33.4
Post High School	13	47.4		
	17	76.8	13-->17	29.4
	Ad	77.0	17-->Ad	0.2
			13-->Ad	29.6
NATIONAL	13	32.9		
NATIONAL	17IS	62.9	13-->17	30.0
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	12.8		
	17IS	34.8	13-->17	22.0
Extreme Rural	13	24.0		
	17IS	55.3	13-->17	31.3
Small City	13	33.7		
	17IS	59.4	13-->17	25.7
Medium City	13	33.7		
	17IS	64.2	13-->17	30.5
Rest Of Big City	13	34.4		
	17IS	68.2	13-->17	33.8
Suburban Fringe	13	38.8		
	17IS	68.7	13-->17	29.9
Extreme Aff Suburb	13	45.9		
	17IS	80.4	13-->17	34.5



Exercise 314 -- Ages 13, 17, and Adult

Objective III: Use what is read.
Subobjective B: Follow written directions.

This complex set of instructions was given only to the upper three age groups. While only 33% of the 13-year-olds correctly completed the figure, 62% (almost twice as many) 17-year-olds did. Adults demonstrated no further improvement.

Looking at the information from a slightly different angle, we see that for every seven 13-year-olds unable to successfully complete the exercise, four adults were unable to complete it.

Exercise 31501

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

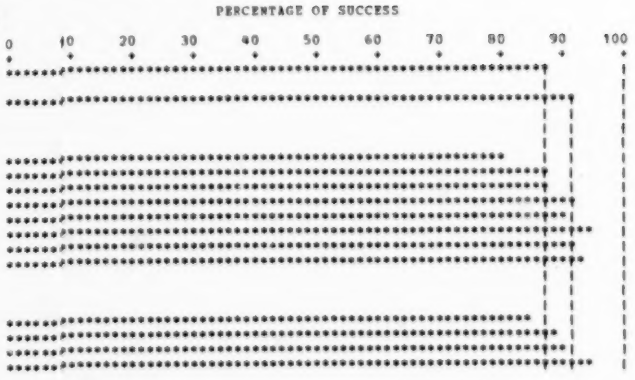
The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

A. How is the first dealer chosen? *Each player draws card from deck; player with highest card becomes dealer*

T11 18 3/1 01*X31S013 R00300D0 13 17
S10 16 3/1 01*X31S013 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	87.5		
	NATIONAL	17	91.8	13-->17	4.3
REGION					
	Southeast	13	80.5		
		17	86.7	13-->17	6.2
	West	13	87.3		
		17	91.7	13-->17	4.4
	Central	13	89.4		
		17	94.5	13-->17	5.1
	Northeast	13	92.1		
		17	92.7	13-->17	0.6
SEX					
	Male	13	84.4		
		17	89.2	13-->17	4.8
	Female	13	90.5		
		17	94.3	13-->17	3.8



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?11 18  3/1  01*X315013 R00300D0                    13 17
510 16  3/1  01*X315013 R00300D0                    13 17
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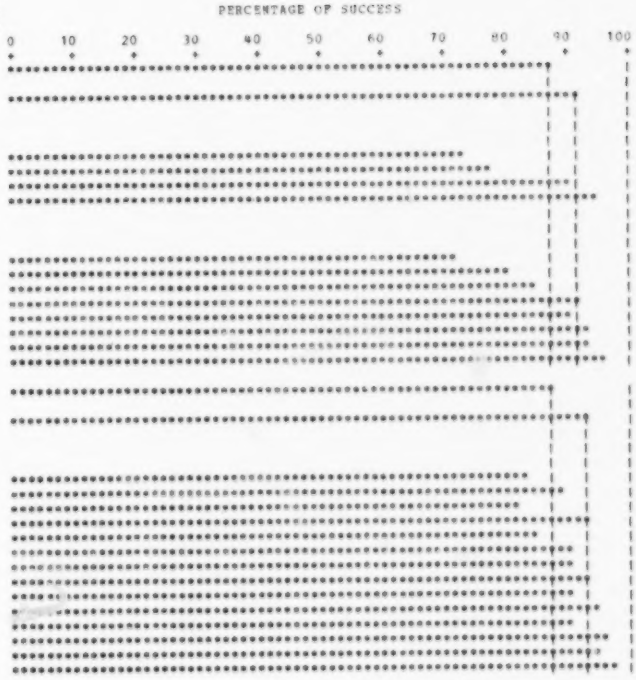
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	87.5		
NATIONAL	17	91.8	13-->17	4.3
COLOR				
Black	13	73.3		
	17	77.5	13-->17	4.2
White	13	90.2		
	17	93.8	13-->17	3.7
PARENTAL EDUCATION				
No High School	13	70.9		
	17	79.7	13-->17	8.9
Some High School	13	83.5		
	17	91.3	13-->17	7.8
Graduated High Sch.	13	89.6		
	17	92.8	13-->17	3.2
Post High School	13	92.7		
	17	95.9	13-->17	3.2
NATIONAL	13	87.5		
NATIONAL	17IS	92.7	13-->17	5.2
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	83.3		
	17IS	88.0	13-->17	4.7
Extreme Rural	13	81.9		
	17IS	92.5	13-->17	10.6
Small City	13	84.9		
	17IS	90.3	13-->17	5.4
Medium City	13	90.1		
	17IS	93.3	13-->17	3.2
West Of Big City	13	89.7		
	17IS	93.7	13-->17	4.0
Suburban Fringe	13	90.3		
	17IS	95.4	13-->17	5.2
Extreme Aff Suburb	13	94.5		
	17IS	96.8	13-->17	2.3



Exercise 31501 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

This is the first of eight questions about Win-Em-All asked of 13- and 17-year-olds. Since 88% of the 13-year-olds correctly identified the player with the high card as the first dealer, there was little room for improvement by 17-year-olds. Almost 92% of the 17-year-olds answered this exercise correctly.

Exercise 31502

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

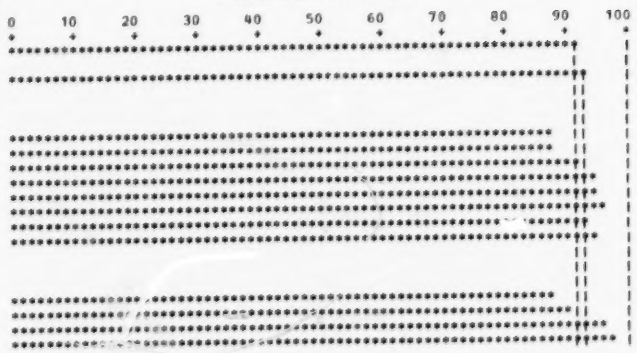
The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

B. Is this a game for adults as well as for children? yes

T11 18 5/1 01*X315023 R0030000 13 17
S10 16 5/' 01*X315023 R0030000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

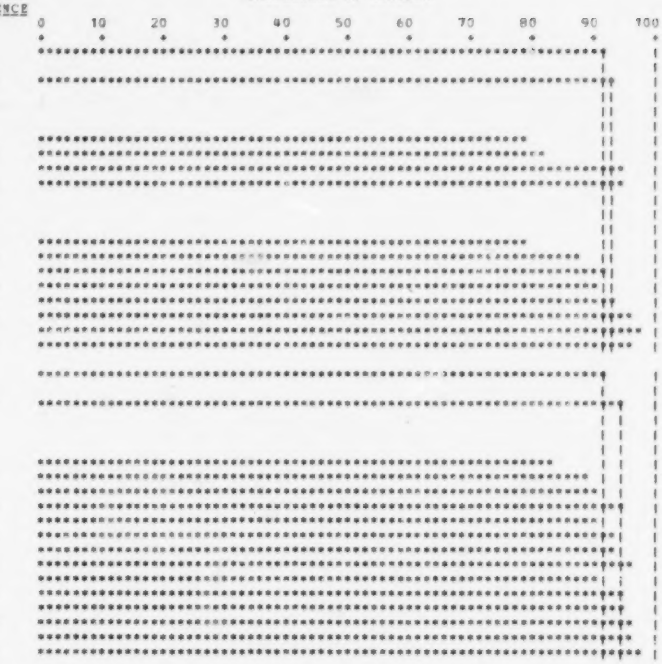
		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	91.3		
	NATIONAL	17	93.3	13-->17	2.0
REGION					
	Southeast	13	87.3		
		17	87.5	13-->17	0.2
	West	13	91.6		
		17	94.3	13-->17	2.6
	Central	13	93.6		
		17	96.2	13-->17	2.6
	Northeast	13	92.3		
		17	93.9	13-->17	1.6
SEX					
	Male	13	87.6		
		17	89.8	13-->17	2.2
	Female	13	95.1		
		17	96.7	13-->17	1.7



211 18 5/1 01*X315023 80030000 13 17
310 16 5/1 01*X315023 80030000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	91.3		
NATIONAL	17	93.3	13-->17	2.0
COLOR				
Black	13	78.4		
	17	81.4	13-->17	3.1
White	13	93.8		
	17	95.0	13-->17	1.2
PARENTAL EDUCATION				
No High School	13	78.6		
	17	86.5	13-->17	7.9
Some High School	13	91.0		
	17	90.5	13-->17	-0.5
Graduated High Sch.	13	92.2		
	17	95.6	13-->17	3.4
Post High School	13	96.7		
	17	95.6	13-->17	-1.1
NATIONAL	13	91.3		
NATIONAL	17IS	94.1	13-->17	2.7
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	83.2		
	17IS	88.2	13-->17	4.9
Extreme Rural	13	90.7		
	17IS	94.7	13-->17	4.0
Small City	13	90.6		
	17IS	93.4	13-->17	2.7
Medium City	13	92.5		
	17IS	95.7	13-->17	3.1
Rest Of Big City	13	90.3		
	17IS	94.1	13-->17	3.8
Suburban Fringe	13	94.1		
	17IS	95.4	13-->17	1.3
Extreme Aff Suburb	13	96.0		
	17IS	96.4	13-->17	0.4



Exercise 31502 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

The second question also proved to be easy for both age groups. About 91% of the 13-year-olds recognized that the game was for adults as well as children, and 17-year-olds recorded a gain of only 2 percentage points over the 13-year-old score.

Exercise 31503

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

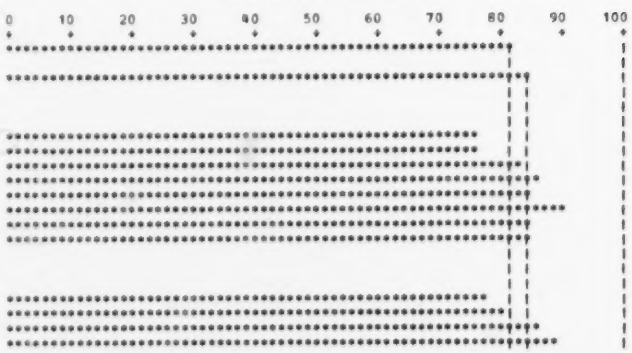
C. What do you do if you have no more cards in your stack? ____

drop out of game

711 18 7/1 01*X315033 R00300D0 13 17
510 16 7/1 01*X315033 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	81.7		
	NATIONAL	17	84.3	13-->17	2.6
REGION					
	Southeast	13	76.3		
		17	75.7	13-->17	-0.6
	West	13	82.2		
		17	85.4	13-->17	3.2
	Central	13	84.1		
		17	89.4	13-->17	5.3
	Northeast	13	83.6		
		17	84.3	13-->17	0.7
SEX					
	Male	13	77.6		
		17	79.8	13-->17	2.2
	Female	13	85.8		
		17	88.6	13-->17	2.8



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T11 16  7/1  01*X315033 R0030000                    13 17
S10 16  7/1  01*X315033 R0030000                    13 17
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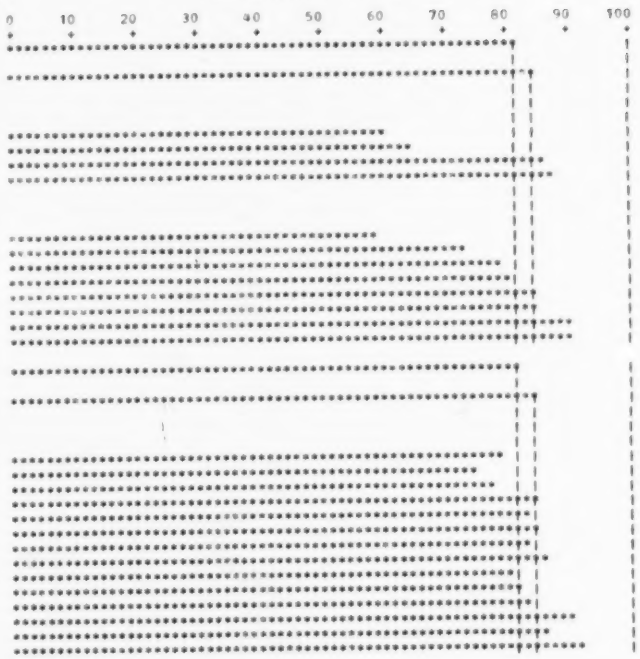
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	81.7		
NATIONAL	17	84.3	13-->17	2.6
COLOR				
Black	13	60.2		
	17	64.3	13-->17	4.2
White	13	85.7		
	17	87.2	13-->17	1.5
PARENTAL EDUCATION				
No High School	13	58.7		
	17	72.2	13-->17	13.5
Some High School	13	78.6		
	17	80.3	13-->17	1.6
Graduated High Sch.	13	83.8		
	17	84.8	13-->17	1.1
Post High School	13	89.5		
	17	90.6	13-->17	1.1
NATIONAL	13	81.7		
NATIONAL	17IS	84.9	13-->17	3.2
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	78.1		
	17IS	74.6	13-->17	-3.5
Extreme Rural	13	77.2		
	17IS	84.7	13-->17	7.5
Small City	13	82.2		
	17IS	83.7	13-->17	1.5
Medium City	13	83.4		
	17IS	85.4	13-->17	2.0
Rest Of Big City	13	79.4		
	17IS	81.8	13-->17	2.4
Suburban Fringe	13	82.6		
	17IS	90.3	13-->17	7.8
Extreme Aff Suburb	13	85.5		
	17IS	91.6	13-->17	6.1



Exercise 31503 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

The third question proved to be a little more difficult. About 82% of the 13-year-olds recognized that a player drops out of the game when he has no more cards, while 84% (an increase of only about 3 percentage points) of the 17-year-olds responded correctly.

Exercise 31504

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

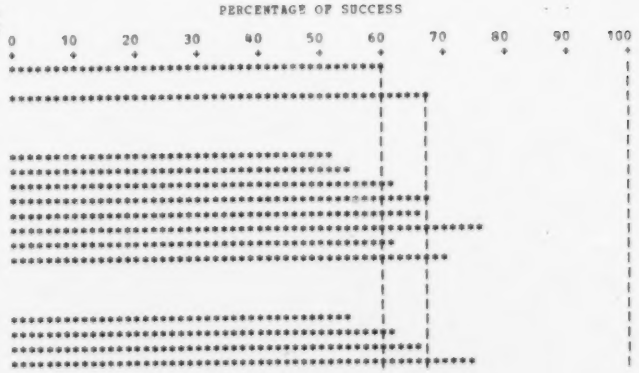
The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

D. Who plays first? player to the left of dealer

T11 18 9/1 01*X315043 R0030000 13 17
S10 16 9/1 01*X315043 R0030000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	60.3		
	NATIONAL	17	67.8	13-->17	7.5
REGION					
	Southeast	13	50.9		
		17	54.7	13-->17	3.8
	West	13	62.0		
		17	66.8	13-->17	4.8
	Central	13	65.5		
		17	75.3	13-->17	9.7
	Northeast	13	61.6		
		17	70.3	13-->17	8.8
SEX					
	Male	13	54.4		
		17	61.3	13-->17	6.9
	Female	13	66.2		
		17	74.1	13-->17	7.9



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T11 1R  9/1  01*X315043 R0030000                    13 17
S10 16  9/1  01*X315043 R0030000                    13 17
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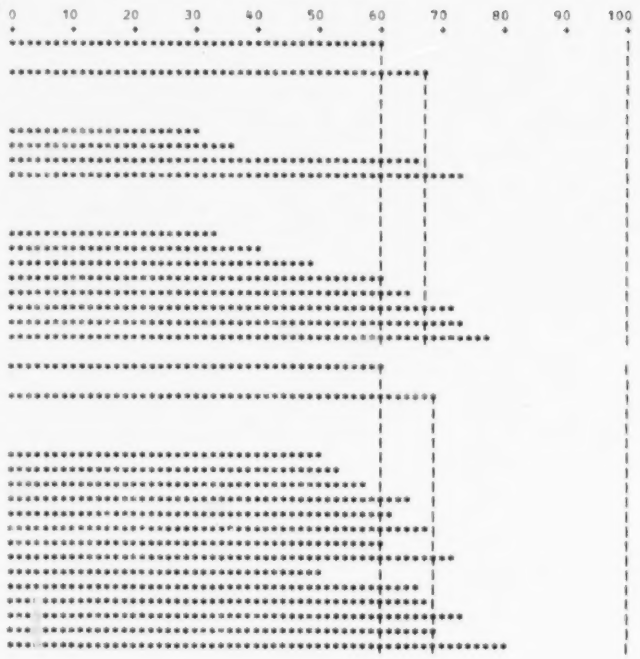
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	60.3		
NATIONAL	17	67.8	13-->17	7.5
COLOR				
Black	13	29.8		
	17	36.3	13-->17	6.6
White	13	66.2		
	17	72.4	13-->17	6.2
PARENTAL EDUCATION				
No High School	13	32.7		
	17	39.7	13-->17	7.0
Some High School	13	48.6		
	17	59.5	13-->17	10.9
Graduated High Sch.	13	63.8		
	17	71.1	13-->17	7.3
Post High School	13	72.2		
	17	76.9	13-->17	4.7
NATIONAL	13	60.3		
NATIONAL	17IS	68.3	13-->17	8.0
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	50.5		
	17IS	53.2	13-->17	2.7
Extreme Rural	13	56.7		
	17IS	63.6	13-->17	6.9
Small City	13	60.9		
	17IS	66.5	13-->17	5.6
Medium City	13	59.3		
	17IS	71.0	13-->17	11.6
Rest Of Big City	13	50.3		
	17IS	65.4	13-->17	15.1
Suburban Fringe	13	67.3		
	17IS	73.5	13-->17	6.2
Extreme Aff Suburb	13	68.3		
	17IS	80.6	13-->17	12.3



Exercise 31504 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

This is the last question about Win-Em-All asked of the same sample of children. It proved to be much more difficult than the preceding questions probably because it required readers to look back at the first part of the passage, while the other three questions were asked in the order in which the information is presented. Four out of ten 13-year-olds did not recognize that the player to the left of the dealer plays first, while about three out of ten 17-year-olds were unable to do so.

Exercise 31601

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

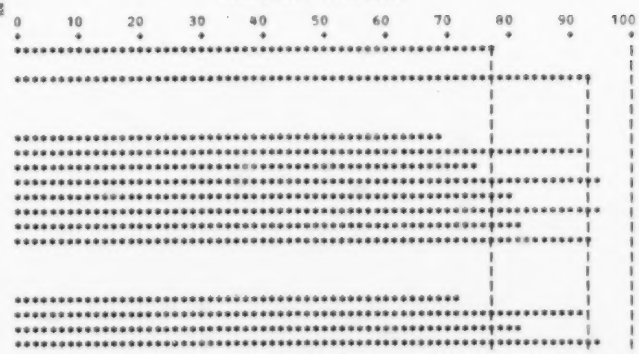
The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

A. Who deals first? person with highest card after each player has drawn one card face down

T12 17 3/1 01*X316013 R00300D0 13 17
S03 17 3/1 01*X316013 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

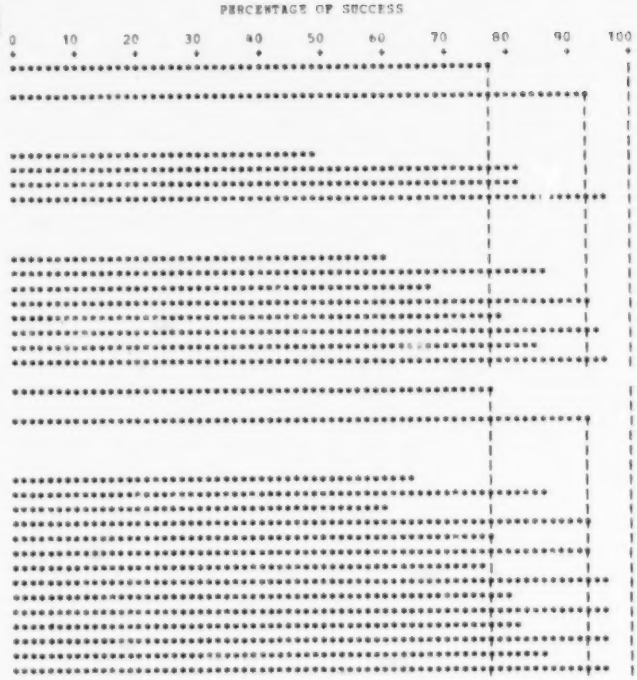
		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	76.4		
	NATIONAL	17	93.3	13-->17	16.9
REGION					
	Southeast	13	68.8		
		17	91.7	13-->17	22.9
	West	13	74.6		
		17	93.7	13-->17	19.1
	Central	13	79.8		
		17	95.0	13-->17	15.2
	Northeast	13	81.1		
		17	92.4	13-->17	11.3
SEX					
	Male	13	71.8		
		17	91.7	13-->17	19.9
	Female	13	80.9		
		17	98.9	13-->17	14.0



T12 17 3/1 01*X316013 R0030000 13 17
503 17 3/1 01*X316013 R0030000 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	76.4		
NATIONAL	17	93.3	13-->17	16.9
COLOR				
Black	13	49.3		
	17	81.2	13-->17	31.9
White	13	81.0		
	17	95.2	13-->17	14.2
PARENTAL EDUCATION				
No High School	13	60.5		
	17	85.6	13-->17	25.0
Some High School	13	67.5		
	17	93.4	13-->17	25.9
Graduated High Sch.	13	78.3		
	17	93.7	13-->17	15.4
Post High School	13	84.5		
	17	96.0	13-->17	11.5
NATIONAL	13	76.4		
NATIONAL	17IS	93.5	13-->17	17.1
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	63.9		
	17IS	85.4	13-->17	21.5
Extreme Rural	13	60.6		
	17IS	92.4	13-->17	31.8
Small City	13	77.4		
	17IS	92.4	13-->17	15.0
Medium City	13	75.5		
	17IS	95.1	13-->17	19.7
Rest Of Big City	13	80.6		
	17IS	96.3	13-->17	15.7
Suburban Fringe	13	81.0		
	17IS	95.3	13-->17	14.2
Extreme Aff Suburb	13	86.1		
	17IS	95.1	13-->17	9.0



Exercise 31601 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

Exercises 31601, 31602, 31603, and 31604 were in a different assessment package from the first four questions about Win-Em-All; thus these questions were asked to a different sample of children. Only 76% of the 13-year-olds correctly responded to the question "Who deals first?" although 88% of the 13-year-olds correctly responded to "How is the first dealer chosen?" the first question in the previous set of four. But 17-year-olds did not find "Who deals first?" a difficult question: 93% of them responded correctly--approximately the same percentage that answered the question "How is the first dealer chosen?" For every three 13-year-olds who could not tell who deals first, only one 17-year-old could not.

Exercise 31602

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

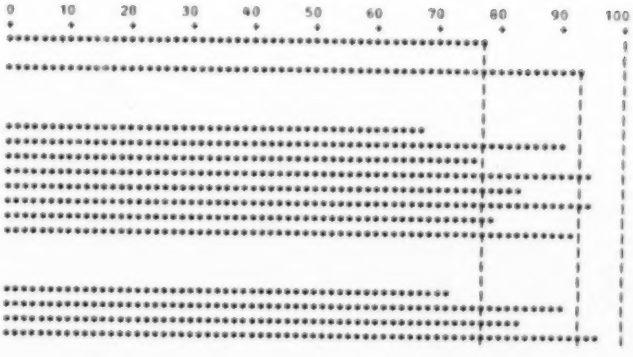
B. How many people may play the game? Any Number

P12 17 5/1 01*X316023 R00300D0 13 17
S03 17 5/1 01*X316023 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	76.9		
	NATIONAL	17	92.6	13-->17	15.7
REGION					
	Southeast	13	67.8		
		17	90.3	13-->17	22.9
	West	13	76.8		
		17	94.0	13-->17	17.6
	Central	13	82.5		
		17	94.4	13-->17	11.9
	Northeast	13	79.1		
		17	90.9	13-->17	11.9
SEX					
	Male	13	71.8		
		17	89.8	13-->17	18.4
	Female	13	82.2		
		17	95.4	13-->17	13.1

PERCENTAGE OF SUCCESS



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T12 17  5/1  01*X316023 R0030000                    13 17
S03 17  5/1  01*X316023 R0030000                    13 17
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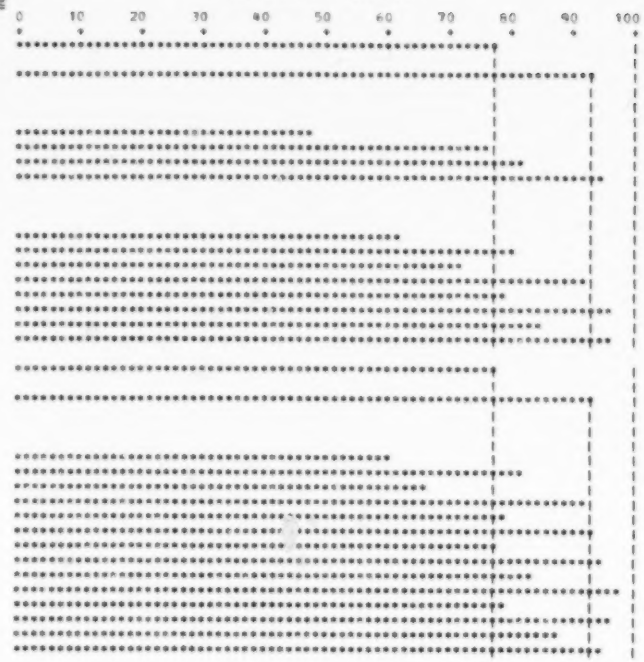
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	76.9		
NATIONAL	17	92.6	13-->17	15.7
COLOR				
Black	13	87.4		
	17	75.7	13-->17	28.3
White	13	81.9		
	17	94.8	13-->17	13.0
PARENTAL EDUCATION				
No High School	13	61.4		
	17	79.4	13-->17	18.0
Some High School	13	71.3		
	17	90.9	13-->17	19.7
Graduated High Sch.	13	78.6		
	17	95.2	13-->17	16.6
Post High School	13	84.9		
	17	95.9	13-->17	11.0
NATIONAL	13	76.9		
NATIONAL	17IS	93.0	13-->17	16.1
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	60.2		
	17IS	81.6	13-->17	21.4
Extreme Rural	13	65.4		
	17IS	91.2	13-->17	26.0
Small City	13	78.4		
	17IS	92.6	13-->17	14.2
Medium City	13	76.5		
	17IS	93.7	13-->17	17.2
Post Of Big City	13	83.2		
	17IS	96.7	13-->17	13.5
Suburban Fringe	13	78.6		
	17IS	95.6	13-->17	17.0
Extreme Aff Suburb	13	86.5		
	17IS	94.9	13-->17	8.4



Exercise 31602 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

This second question about Win-Em-All also shows a large gain for 17-year-olds. About 77% of the 13-year-olds and 93% of the 17-year-olds recognized that any number of people can play the game. For every three 13-year-olds who could not answer the question, only one 17-year-old could not.

Exercise 31603

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

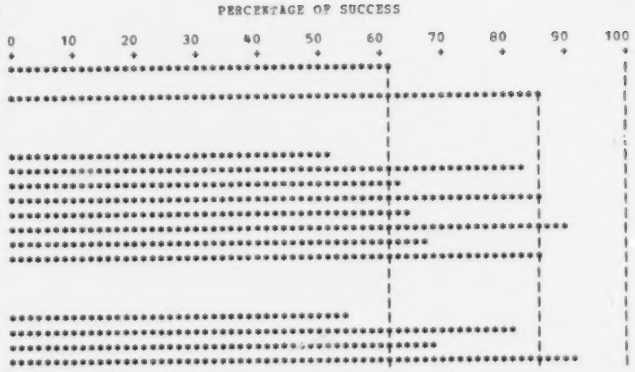
C. What happens to a trick if there is a tie for high card?

Person on Right; Winner of Left Round Wins Three also

T12 17 7/1 01*X316033 R00300D0 13 17
S03 17 7/1 01*X316033 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

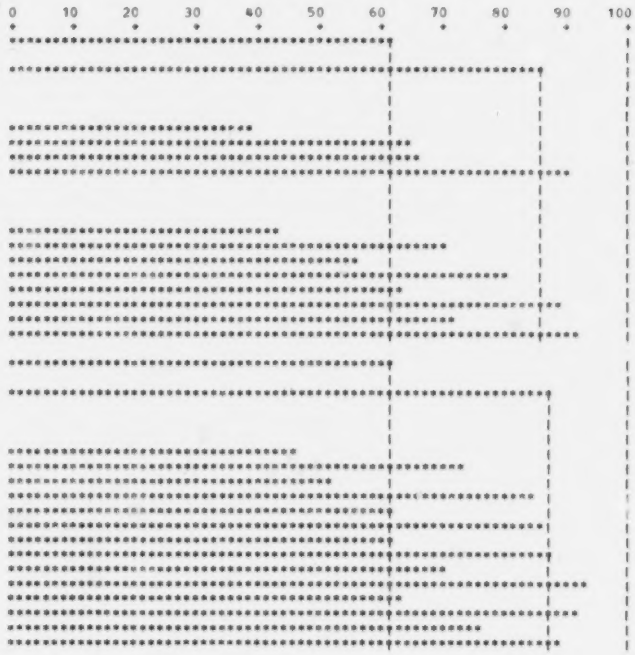
		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	61.6		
	NATIONAL	17	86.3	13-->17	24.7
REGION					
	Southeast	13	52.0		
		17	82.5	13-->17	30.5
	West	13	62.4		
		17	86.1	13-->17	23.7
	Central	13	64.1		
		17	89.6	13-->17	25.6
	Northeast	13	66.9		
		17	86.0	13-->17	19.0
SEX					
	Male	13	54.3		
		17	81.9	13-->17	27.6
	Female	13	68.8		
		17	90.8	13-->17	22.0



T12 17 7/1 01*X316033 R00300D0 13 17
S03 17 7/1 01*X316033 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	61.6		
NATIONAL	17	86.3	13-->17	24.7
COLOR				
Black	13	38.9		
	17	64.9	13-->17	26.0
White	13	65.5		
	17	89.4	13-->17	23.9
PARENTAL EDUCATION				
No High School	13	43.3		
	17	70.4	13-->17	27.1
Some High School	13	56.4		
	17	80.3	13-->17	23.9
Graduated High Sch.	13	62.5		
	17	88.5	13-->17	26.0
Post High School	13	70.8		
	17	92.0	13-->17	21.2
NATIONAL	13	61.6		
NATIONAL	17IS	86.8	13-->17	25.2
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	45.4		
	17IS	72.8	13-->17	27.4
Extreme Rural	13	51.2		
	17IS	84.7	13-->17	33.5
Small City	13	61.0		
	17IS	85.0	13-->17	24.0
Medium City	13	61.3		
	17IS	87.7	13-->17	26.4
Rest Of Big City	13	69.5		
	17IS	92.3	13-->17	22.8
Suburban Fringe	13	62.9		
	17IS	91.4	13-->17	28.5
Extreme Aff Suburb	13	76.4		
	17IS	89.1	13-->17	12.7



Exercise 31603 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

Only 62% of the 13-year-olds were able to explain what happened to a trick if there is a tie for the high card, while 86% of the 17-year-olds were able to do so. Again, for every three 13-year-olds who were not able to answer the question, only one 17-year-old was unable to.

Exercise 31604

WIN-EM-ALL

A card game for the whole family--any number may play.

Each player draws a card from the deck. The player with the highest card becomes the dealer. Deal the cards, one at a time, to all players until all of the cards have been dealt. Each player places his cards face down in a stack in front of him.

To begin the game, the player to the left of the dealer places the top card from his stack face up in the center of the table. Other players follow in turn. The winner of the trick is the player who has placed the highest card in the center. If there is more than one high card in the same trick (for example, two kings), then no one wins this trick. It remains in the center and the winner of the next round wins these cards also. Winning tricks are placed face down at the bottom of the winner's stack of cards. The winner of the trick then plays the first card for the next round face up in the center.

When a player has used up all his cards he drops out of the game.

The point of the game is for a single player to collect all of the cards. The winner becomes the dealer for the next game.

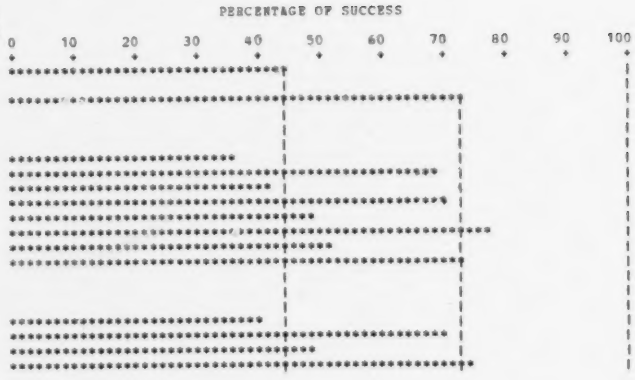
D. How is the winner of the game determined?

the person collecting all of the cards

T12 17 9/1 01*X316043 R00300D0 13 17
S03 17 9/1 01*X316043 R00300D0 13 17

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	44.9		
	NATIONAL	17	72.2	13-->17	27.3
REGION					
	Southeast	13	36.2		
		17	67.9	13-->17	31.7
	West	13	41.0		
		17	70.4	13-->17	29.3
	Central	13	49.1		
		17	76.4	13-->17	27.4
	Northeast	13	51.5		
		17	72.8	13-->17	21.3
SEX					
	Male	13	40.7		
		17	69.5	13-->17	28.8
	Female	13	49.1		
		17	74.9	13-->17	25.9



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S03 17  9/1  01*X316043 80030DD0                    13 17
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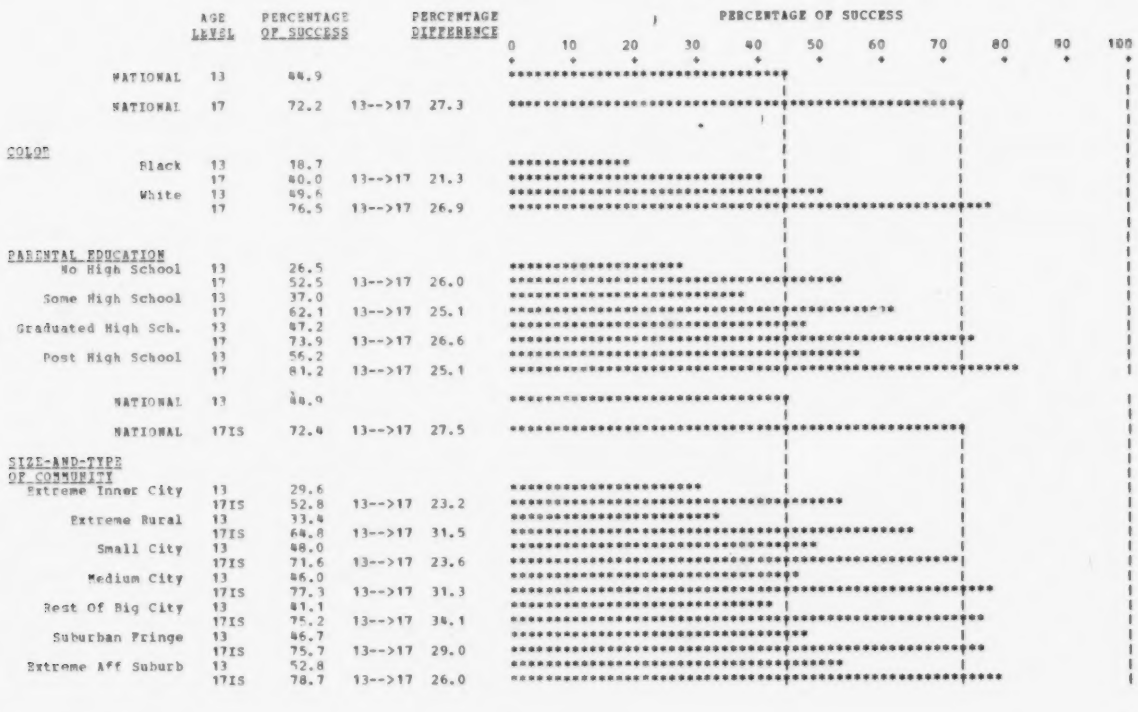
NATIONAL AND GROUP PERCENTAGES OF SUCCESS



	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	44.9		
NATIONAL	17	72.2	13-->17	27.3
COLOR				
Black	13	18.7		
	17	40.0	13-->17	21.3
White	13	49.6		
	17	76.5	13-->17	26.9
PARENTAL EDUCATION				
No High School	13	26.5		
	17	52.5	13-->17	26.0
Some High School	13	37.0		
	17	62.1	13-->17	25.1
Graduated High Sch.	13	47.2		
	17	73.9	13-->17	26.6
Post High School	13	56.2		
	17	81.2	13-->17	25.1
NATIONAL	13	44.9		
NATIONAL	17IS	72.4	13-->17	27.5
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	29.6		
	17IS	52.8	13-->17	23.2
Extreme Rural	13	33.4		
	17IS	64.8	13-->17	31.5
Small City	13	48.0		
	17IS	71.6	13-->17	23.6
Medium City	13	46.0		
	17IS	77.3	13-->17	31.3
Rest Of Big City	13	41.1		
	17IS	75.2	13-->17	34.1
Suburban Fringe	13	46.7		
	17IS	75.7	13-->17	29.0
Extreme Aff Suburb	13	52.8		
	17IS	78.7	13-->17	26.0

Exercise 31604 -- Ages 13 and 17

Objective III: Use what is read.
Subobjective B: Follow written directions.

Less than half of the 13-year-olds were able to explain how the winner of the game is determined, while almost three-quarters of the 17-year-olds were able to explain it.

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